

*The C. F. Pease  
Company  
Chicago*

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**Blue Print  
Machinery  
and Drafting  
Room  
Supplies**

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**Catalog B**  
(Second Edition)











ADDRESS ALL CORRESPONDENCE TO GENERAL OFFICES

*Everything for Blue Printing*

# The C.F. Pease Company

Manufacturers  
*of*

Blue Print Machinery  
Blue Print Room Supplies  
Direct White Print Machinery  
Drafting Room Furniture  
*and*  
Supplies

Catalog B

General Offices *and* Factory: 213-231 Institute Place  
Chicago, Ill., U.S.A.

City Sales Office:  
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Cable Address: Peaseco, Chicago.

Eastern Sales Office:  
30 Church Street, New York, N.Y.  
A.B.C. and Private Codes




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by  
The C. F. Pease Company





## Ⓟ EVERYTHING FOR BLUE PRINTING Ⓟ

ONCE again we are asking our friends to scan a new catalog.



matter.

**Lists**—Lists in this catalog supersede all previous ones. Prices and Discounts are subject to change without notice.



## Important Notice

Chicago, Ill., Feb. 1, 1920

For several months we have had, all ready for the printer, copy and illustrations for a new catalog; and have not found it wise, or even possible, to release it for publication. The generally unsettled conditions of the raw material market and the labor market during the past two years have made it practically impossible to issue either price lists or discount sheets that would be accurate for any length of time—in fact, many of them have become useless before they could be gotten from the press.

For this reason, we decided to hold up the issue of our new catalogue until conditions became more normal and prices stabilized to at least an appreciable extent.

Our Catalog "B," second edition, will therefore continue to be an excellent and accurate guide to our general line, both for machinery and supplies, but the prices on some of the items are below present lists and we are unable to issue a discount sheet applying thereto that would be at all accurate or intelligible, or which we could guarantee for any length of time.

*Any orders or inquiries sent in to us will be accorded the lowest prices prevailing at the time of their receipt—our friends know this already and new customers have only to make inquiries to be assured of it.*

If your purchases are of considerable importance, we will be only too glad to quote you by return mail on your requirements, whatever they may be.

Cordially yours,

THE C. F. PEASE COMPANY.





## ® EVERYTHING FOR BLUE PRINTING ®

**O**NCE again we are asking our friends to scan a new catalog, and feel sure that you will be repaid for the time it takes. The last edition of our General Catalog met with the cordial support of our large clientele, which has been very gratifying to us, and which has placed us in a position to serve you better than ever.

We thank you for your generous patronage, and assure you that in all our transactions we aim to get our customers' point of view. Each order placed with us, whether large or small, will have the most careful attention; if at any time there should be any dissatisfaction please allow us the privilege of making an adjustment which will be satisfactory to you.

For easy reference our present edition has been divided into the following classifications:

	PAGES
Blue Printing Machinery.....	5 to 44
Coating Machinery .....	45 to 54
Paper Coating .....	55 to 63
Commercial Blue Printing and Map Mounting..	64 to 72
Drafting Room Supplies.....	73 to 161
Drafting Room Furniture.....	162 to 185
Draftsmen's Miscellaneous Supplies.....	185 to 210
Surveying Instruments and Supplies.....	211 to 267

If you require something that we have not listed we shall take pleasure in making an effort to procure it for you if you will write us.

Cordially yours,

THE C. F. PEASE COMPANY.

**Orders**—In ordering please specify catalog numbers.

**Shipments**—To avoid delay, state if goods are to be sent by Freight or Express and give routing. Packages sent by Parcel Post if valued at \$1.00 or more will be insured and charges added to invoice unless we are otherwise instructed.

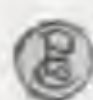
**Packing**—All goods carefully packed, but shipments will be at purchaser's risk. Our responsibility ceases after clean receipt has been obtained from transportation company.

**Terms**—Thirty days from date of invoice. If you desire to open an account with us, and are not rated by the commercial agencies, please furnish us with satisfactory references, thus avoiding delay in the execution of your orders.

**Guarantee**—We guarantee our goods to be as represented. In case of any dissatisfaction we shall take pleasure in adjusting the matter.

**Lists**—Lists in this catalog supersede all previous ones. Prices and Discounts are subject to change without notice.



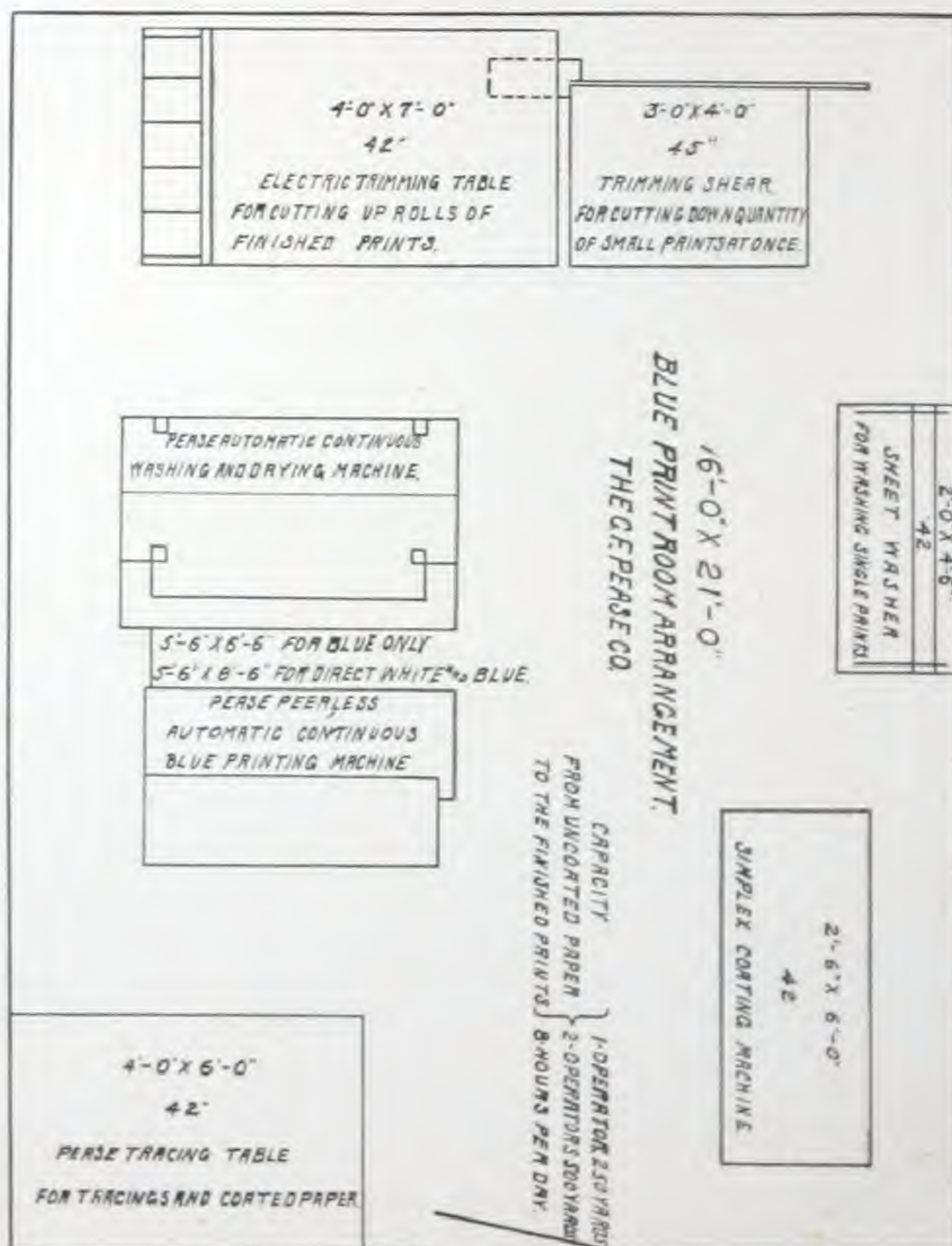


## Arrangement of Blue Print Room

The plan shown below is merely suggestive, and is intended to illustrate the great compactness of the Pease Blue Printing Machinery. The various machines may be arranged in any way desired to suit local conditions.

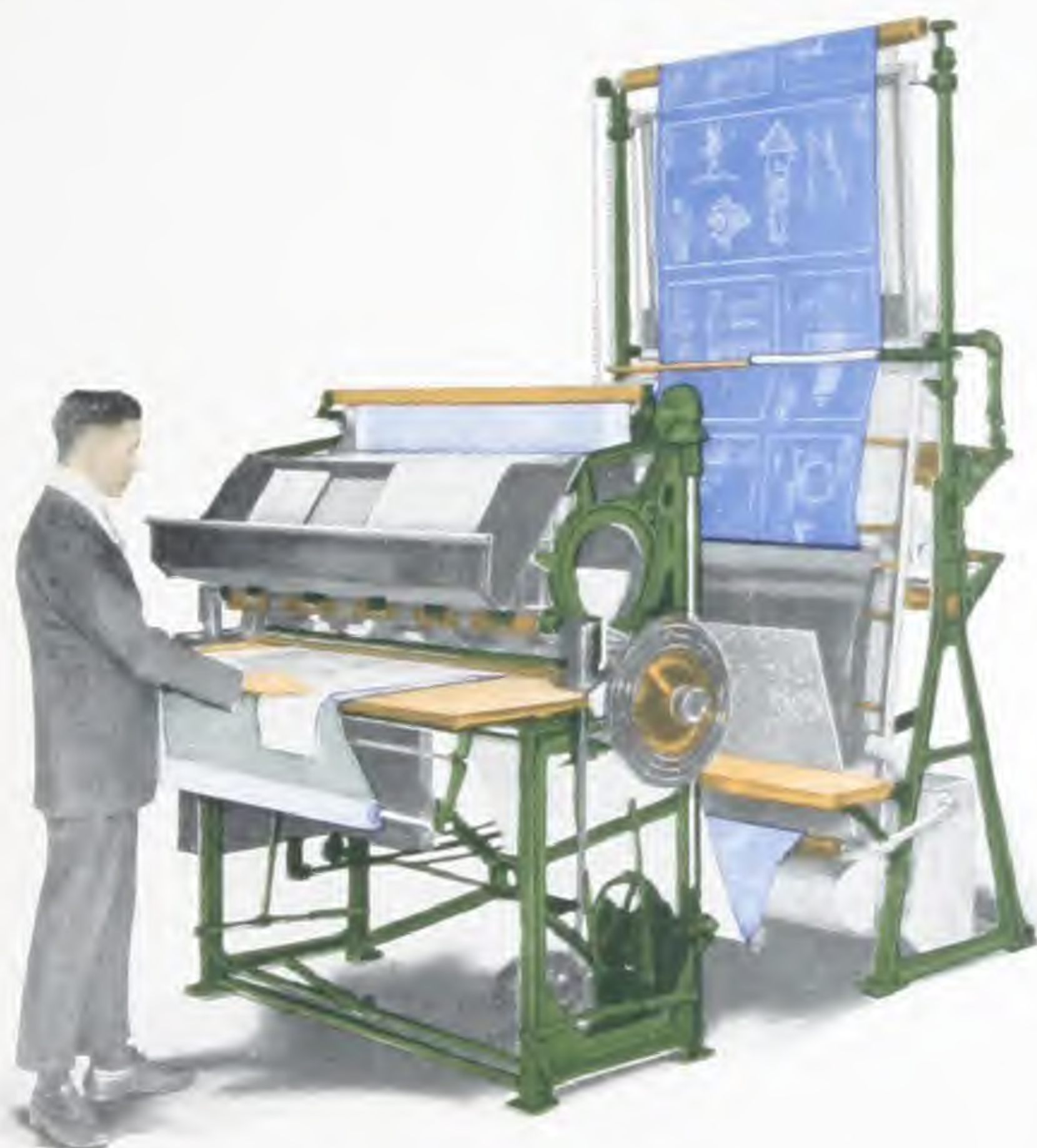
Measurements given below show floor space required by each machine.

As all of the Pease machines are noiseless and free from dirt or other objectionable features, they can readily be placed in one end of the drafting room if desired. The advantage of having the blue printing room in close proximity to the drafting department will be appreciated.





# Peerless Blue Printing, Washing and Drying Equipment in Operation



For full description see following pages







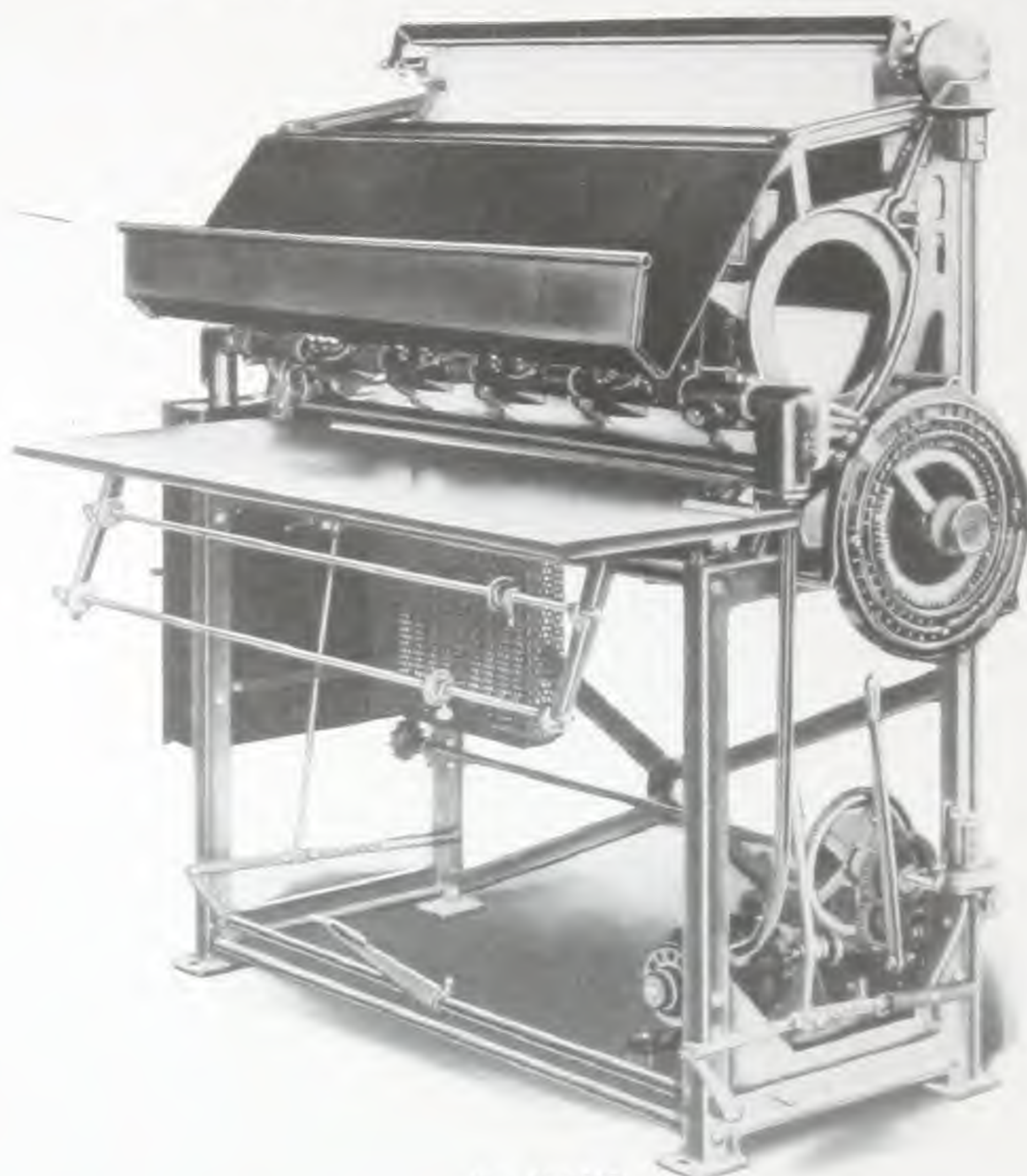
## BLUE PRINTING MACHINERY

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IN the following pages we place before our readers a concise description of the Pease line of blue printing machines and blue print paper coating machines. During the years that these machines have been on the market they have met with the unqualified approval of the leading railroads, manufacturers and commercial blue printers, as well as many Government Departments, both in the United States and foreign countries. The Pease Peerless process of automatically printing, washing and drying by one continuous operation is now accepted as the most efficient and economical method of making blue prints. By this process the prints are more thoroughly washed and more evenly dried than by any hand method. We will gladly supply names and addresses so that anyone contemplating purchase may obtain the opinion of the actual users of the machines.



## The Pease Peerless Blue Printing Machine



No. B-6402

No. B-6402—THE PEASE PEERLESS PRINTER, complete with motor and electric speed changing device, wired for 220 volts, direct current.

No. B-6401—THE PEASE PEERLESS PRINTER, complete as above, wired for 110 volts, direct current.

Size AA—For paper up to 30 in. wide, with 4 arc lamps, ..... \$.....

Size A—For paper up to 42 in. wide, with 5 arc lamps, ..... \$.....

Size B—For paper up to 54 in. wide, with 6 arc lamps, ..... \$.....

Size C—For paper up to 66 in. wide, with 7 arc lamps, ..... \$.....

No. B-6403—THE PEASE PEERLESS PRINTER, complete with motor and electric speed changing device, wired for 220 volts, alternating current. For either size add \$100.00 to D. C. prices.

Each size will pass tracings six inches wider than paper specified, but will give contact only two inches wider.

Better results will be obtained with 220 volts on either direct or alternating current than with 110 volts. We urge the use of 220 volts, preferably D. C., wherever possible.



## The Pease Peerless Blue Printing Machine

(Continuous Electric)

**This machine**, as illustrated on opposite page, was designed for producing a large quantity of blue prints at the lowest possible cost for operation and maintenance. It is the result of years of experience and combines many new and valuable features. Several hundred of the leading railroads, manufacturers and commercial blue printers, as well as Government offices, have these machines in daily operation, and all of them are giving the best of satisfaction.

**Construction**—Special care has been taken in the construction of this machine. The framework is so rigid that it is with perfect safety shipped completely assembled, with the exception of the feeding table. Every machine is in perfect adjustment, having been accurately tested before leaving the factory; it is only necessary to knock off the crate, attach the feeding table with two bolts, and connect the wires. The machine without the table will pass through any ordinary door.

**Tracings** are fed upward past a bank of arc lamps and returned into the tracing tray at the operator's hand as he stands in front of the machine. With all other printers it is necessary for the operator each time to stoop down below the machine or go behind it to pick up the tracings. By our method much greater care may be given the valuable tracings; long ones may be rolled up as they pass into the tracing tray.

**Printing Speed** is from four inches to six feet per minute and is regulated by means of a rheostat placed on the right-hand end of the Printer.

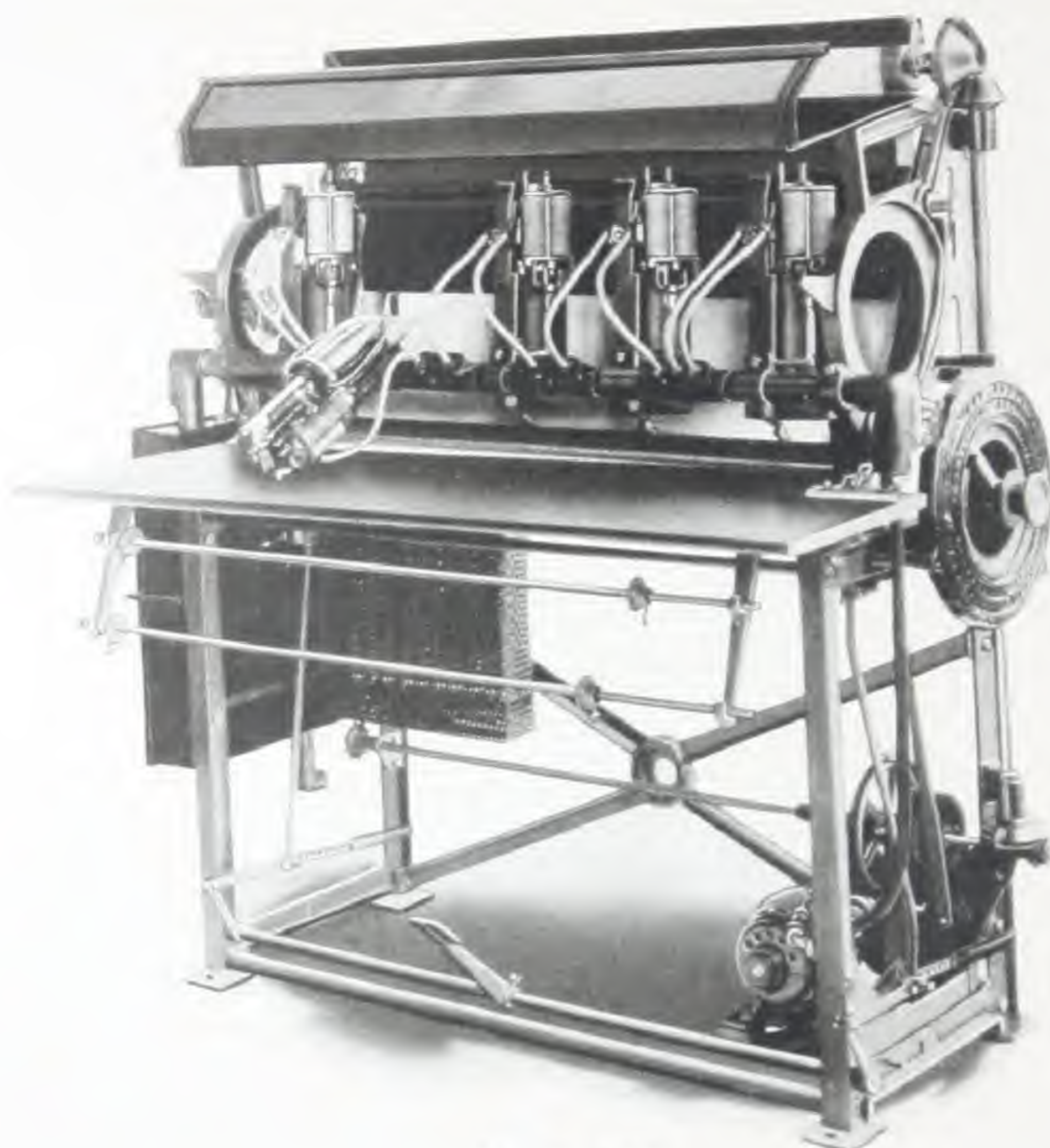
**Perfect Contact** is obtained by means of an endless canvas belt, the stretch of which is automatically taken up by tension springs. The belt is centered by means of a patented device.

**Output** is approximately 100 linear yards per hour when wired for 220 volts D. C., which speed our long experience has demonstrated to be as fast as an operator can properly feed the tracings. Machine can be equipped, at additional cost, to print 200 yards per hour, but we do not recommend this high speed.



## The Pease Peerless Blue Printing Machine

With tracing tray pushed back and one lamp turned down.



No. B-6402

### Space occupied, including feeding table

30-in. machine	3 ft. x 4½ ft.
42-in. machine	3 ft. x 5½ ft.
54-in. machine	3 ft. x 6½ ft.
66-in. machine	3 ft. x 7½ ft.

Exclusive of feeding table, will pass through a 26-inch doorway.  
Shipped completely assembled, with exception of feeding table.



## The Pease Peerless Blue Printing Machine

(Continuous Electric)

The illustration on the opposite page shows the machine with the tracing tray pushed back and one lamp turned down in position for cleaning the globe and trimming the carbons.

**The Electrical Construction** is of the very best. Special care has been exercised to provide an electrical construction which will be satisfactory to any board of fire underwriters or city electrical inspector.

**The Lamps** are of special design and construction, being connected in at the bottom, the wiring enclosed in steel conduits and each lamp provided with a separate knife switch. All switches are enclosed in a metal box attached to the left-hand end of the machine. The resistance coils are separated from the lamps and placed in a perforated metal box underneath the framework.

For use in the Peerless machine only we have perfected a 220-volt, 60-cycle alternating current arc lamp that will print as rapidly as a direct current lamp. It has a long, steady arc and therefore, though printing at a much faster speed, consumes no more current than A. C. lamps of other makes.

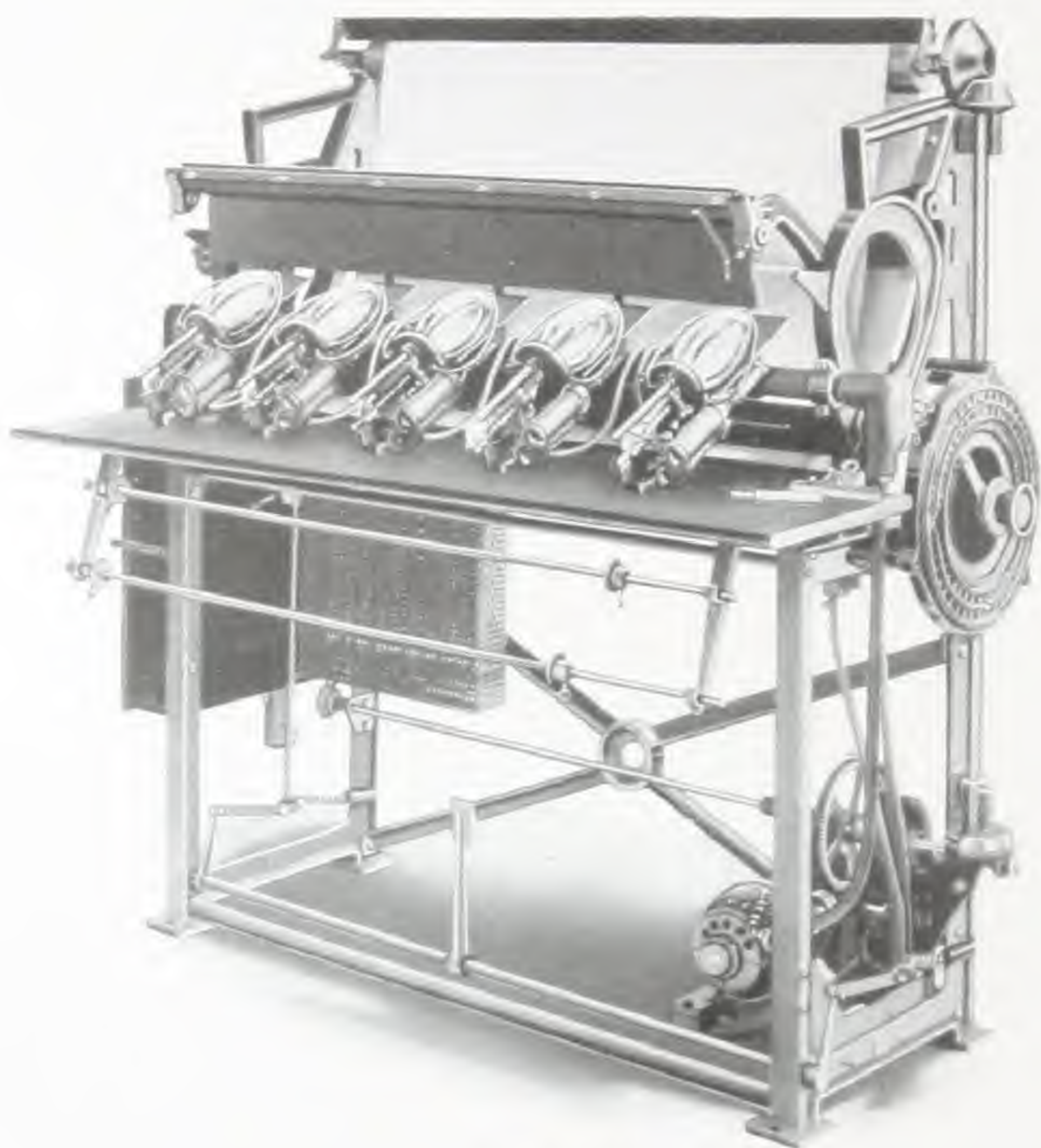
**A Variable Speed Motor** is used, and all speeds are controlled electrically, thus doing away with noisy and unreliable friction discs and transmission belts. By means of the controller and one gear change any speed from four inches per minute up to six feet per minute may be instantly obtained with 220 volts D. C. or A. C. Double this speed can be provided for at additional cost. A ventilating fan driven by an independent motor is employed for circulating the air.

**The Machine in Operation** is so quiet, and so free from dirt and other objectionable features, that it may be conveniently placed in a corner of the drafting room. The operator is thus enabled to use his surplus time for other work. Many of these machines have been so installed, with entire satisfaction.



## The Pease Peerless Blue Printing Machine

With all lamps turned down and contact glass in position for cleaning



No. B-6402

We regularly equip the Peerless Printer with lamps of 5 to 6 amperes each on 220 volt circuit, and 10 to 12 amperes each on 110 volts.

In ordering machine be particular to specify current and voltage, and if for A. C., also specify frequency of cycle.



## **The Pease Peerless Blue Printing Machine**

(Continuous Electric)

**The illustration** on the opposite page shows the machine with the enameled iron tracing tray removed, all lamps turned down on the table, and the contact glass tipped forward in position for cleaning.

**No Expensive Glass Cylinders** or transparent bands are used, but in place thereof a segment of the best quality French plate glass, designed for this particular machine. This glass is mounted in an iron frame, and so hung that breakage is impossible except through gross carelessness.

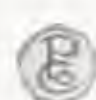
**Much consideration** has been given to the construction of this machine so as to provide perfect contact at all times. A wide canvas belt is used for conveying the paper and tracings, and by a special patented device all side travel of this belt is eliminated.

**Tension Springs** are provided, which automatically take up the stretch of the canvas belt. Where this is not sufficient, an additional take-up is provided under the feeding table, so as to increase the adjustment of the springs.

**A Foot Treadle** is provided for releasing the contact, thus enabling the operator to withdraw a tracing at any time.

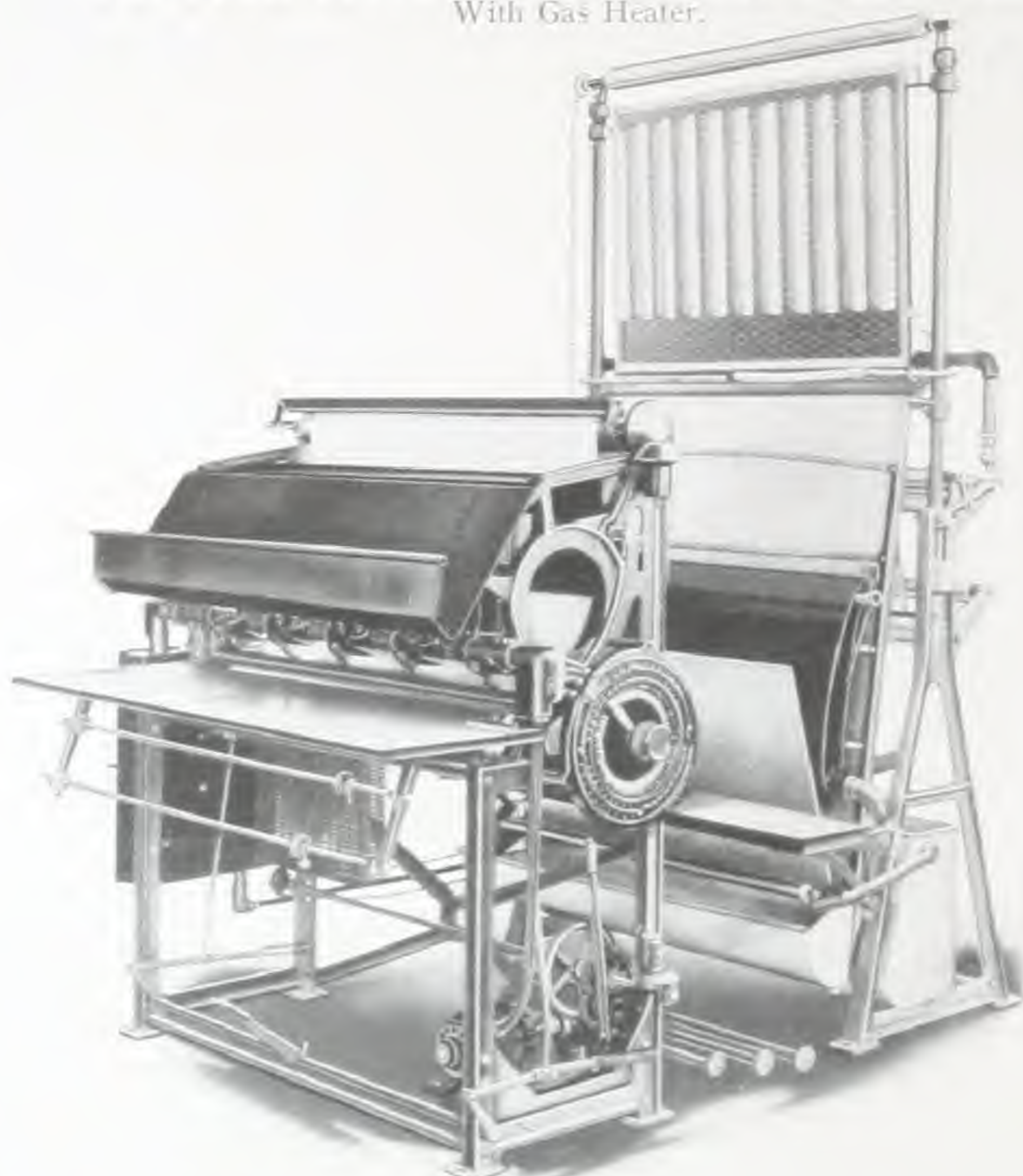
**All Parts of the Machine** are accessible for cleaning, without the use of wrench or screw-driver, and without changing adjustments.





## The Pease Peerless Blue Printing Equipment

With Gas Heater.



- No. B-6406—THE PEASE PEERLESS PRINTER, connected with THE PEERLESS AUTOMATIC WASHING AND DRYING MACHINE, equipped with potashing attachment, gas heater and automatic rolling-up device, complete, wired for 220 volts direct current.
- No. B-6405—THE PEASE PEERLESS PRINTER, connected with THE PEERLESS AUTOMATIC WASHING AND DRYING MACHINE, complete as above, wired for 110 volts direct current.
- Size AA—For paper up to 30 in. wide, with 4 arc lamps. . . . . \$ . . . . .
- Size A—For paper up to 42 in. wide, with 5 arc lamps. . . . .
- Size B—For paper up to 54 in. wide, with 6 arc lamps. . . . .
- Size C—For paper up to 66 in. wide, with 7 arc lamps. . . . .
- No. B-6407—THE PEASE PEERLESS PRINTER, connected with THE PEERLESS AUTOMATIC WASHING AND DRYING MACHINE, complete as above, wired for 220 volts alternating current.
- For either size add \$100.00 to D. C. prices.

Better results will be obtained with 220 volts on either direct or alternating current than with 110 volts. We urge the use of 220 volts, preferably D. C., wherever possible.



## The Pease Peerless Blue Printing Equipment

(Continuous Electric)

The illustration on the opposite page shows the Pease Peerless Blue Printing Machine, as described in the foregoing pages, connected with the Peerless Automatic Washing and Drying Machine. With this equipment one operator can easily turn out 100 linear yards of finished blue prints per hour (printed, washed and dried), when equipped for 220 volts D. C. or A. C., delivering the prints at the end of the dryer automatically wound in a loose roll, ready for use, and perfectly free from wrinkles or distortions. Blue Print Cloth can be printed, washed and dried with equal facility, without the usual distortion, and with much less shrinkage than when washed in trays and dried in the air. The illustration shows the equipment as arranged with gas dryer, consuming about fifty cubic feet of gas per hour.

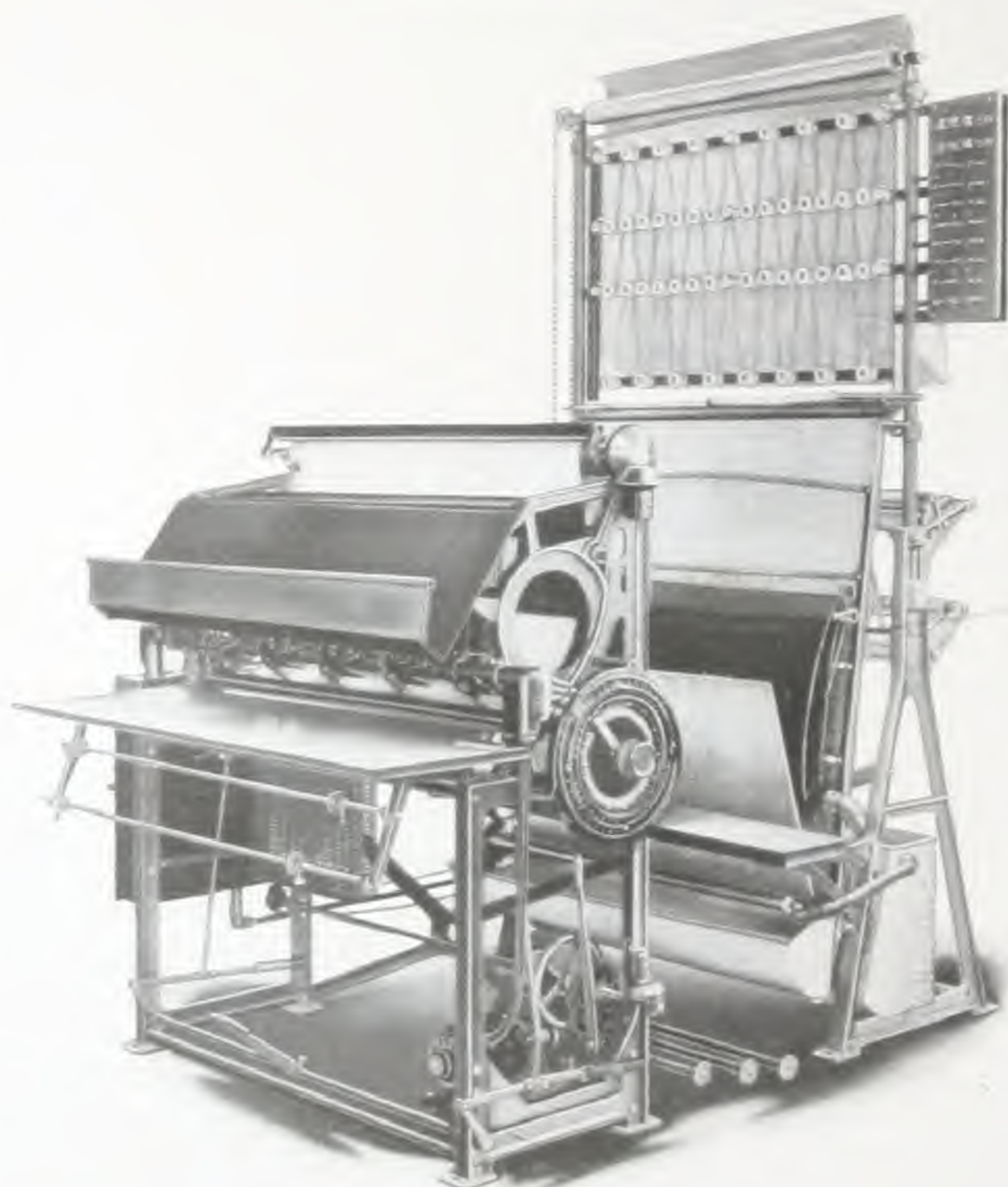
The Printing Machine may be used entirely independent of the Washer and Dryer when desired, merely by throwing out of engagement the clutch on the Washer, as shown in a later illustration, thus enabling the operator to run through a few emergency prints at a moment's notice. Many railroads and manufacturers are using this complete equipment who, under ordinary circumstances, do not operate it an hour a day, but who recognize the enormous saving in time and labor, not only in the blue print room, but throughout the entire system when occasional large quantities of prints are wanted.

The entire equipment occupies a space only six and one-half feet long by the width of the machine. The Washing and Drying Machine is regularly built for ceiling not less than nine and one-half feet high, but can be constructed for any lower ceiling at a small additional cost.



# The Pease Peerless Blue Printing Equipment

With Electric Heater.



## Space Occupied

30-in. machine.....	4½ ft. x 6½ ft.
42-in. machine.....	5½ ft. x 6½ ft.
54-in. machine.....	6½ ft. x 6½ ft.
66-in. machine.....	7½ ft. x 6½ ft.

Standard height of Washing and Drying Machine is 9¼ feet, but when necessary can be built to accommodate a lower ceiling at a small additional cost.

The Printing Machine can be used independently whenever desired.



## The Pease Peerless Blue Printing Equipment

(Continuous Electric)

The illustration on the opposite page shows the Pease Peerless Blue Printing Machine, as described in the foregoing pages, connected with the Peerless Automatic Washing and Drying Machine equipped with Electric Heater.

This Electric Heater is furnished with a series of switches providing for **eleven** gradations of heat, enabling the operator to regulate the heat according to the speed at which the Printer is running. Electrical construction has been approved.

When Printer is running at a maximum speed of six feet per minute the dryer will require about fifty amperes of current at 220 volts. The current consumption of the dryer is materially lessened when printer is running on the slower speeds.

	PRICE
No. B-6437—ELECTRIC HEATER for Peerless Automatic Washing and Drying Machine. Wired for 220 volts. Add to price of equipment with gas heater. .	\$50.00
No. B-6436—ELECTRIC HEATER for Peerless Automatic Washing and Drying Machine. Wired for 110 volts. Add to price of equipment with gas heater. .	50.00

When machines are equipped for direct current it is possible to place the resistance coils of the lamps in the electric heater, thereby decreasing the amount of current consumed in drying about one-third. This construction will be provided when requested at a small additional charge, but is not recommended unless machine is to be used for blue print work only, as the coils produce too much heat for negative and black line printing.



## The Pease Peerless Blue Printing Equipment



Rear view, showing course of paper through the machines into the rolling-up device.



## **The Pease Peerless Blue Printing Equipment**

(Continuous Electric)

The illustration on the opposite page shows the rear view of the Pease Peerless Equipment, with the course of the paper around the machine from the printer into the rolling-up device. It also shows the pump with direct connected motor for pumping the potash water from the tank into the spray pipe of the potashing device. The surplus potash water is returned to the tank by gravity.

This illustration also shows the release clutch on the washer for disengaging the Washing and Drying Machine from the Printer so that the latter may be used independently when desired.

### **Directions for Operating the Peerless Automatic Washing and Drying Machine**

When not in use the machines will have a strip of blank paper throughout the course to be followed by the blue print paper, with one end projecting from the entrance of the printer and the forward end terminating in the rolling-up device of the dryer. To make prints, place the roll of sensitized paper in the brackets provided for it on the printing machine, and paste the end of the projecting strip onto the end of the roll of paper. Immediately start the machine and begin feeding tracings until all the prints required have been exposed; then cut off the sensitized paper a few inches from the last tracing and paste the end onto another strip of blank paper. These two strips of blank paper are used over and over, and serve to carry the printed paper through to the end of the dryer.

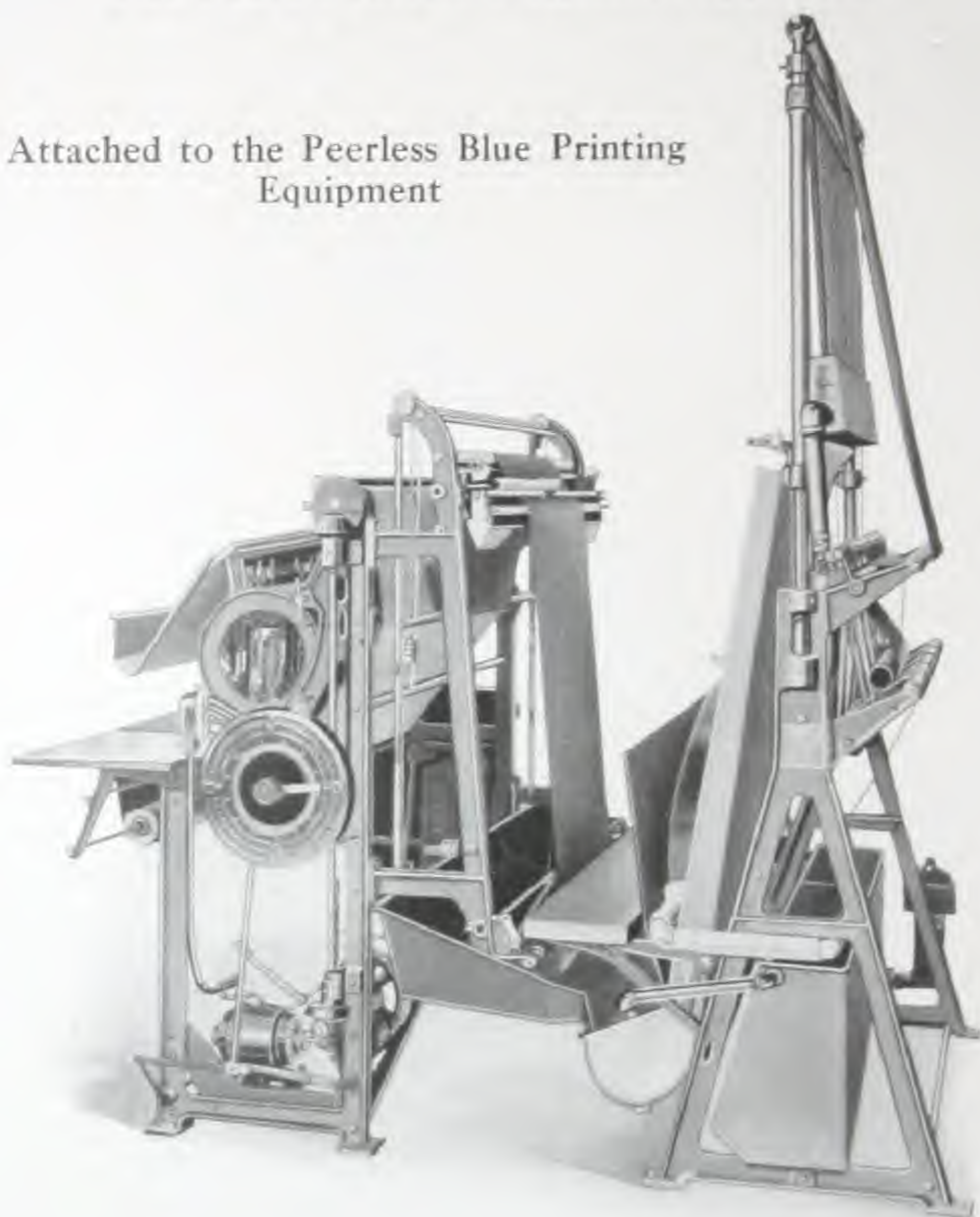
The only attention required of the operator will be to turn on the water as the print starts into the washer, turn on the potash pump and light the heater; same to be turned off again as soon as the last print passes the water spray and heater. By this method one or a thousand prints can be made with no more waste of paper than is necessary to make the narrow joint at the start and finish.

When it is desired to use the Printing Machine only, the clutch in the washer is thrown out and the strip of blank paper or leader is run out of the printer and allowed to drop down between the printer and the washing and drying machine. When the apparatus is again to be run continuously the operator places his foot on the treadle which releases the contact belt, and slips the leader or blank strip back into the printer.



## The Pease Peerless Negative Apparatus

Attached to the Peerless Blue Printing  
Equipment



Does not increase amount of floor space occupied by blue printing equipment (see page 14).

No. B-6409—PEASE PEERLESS NEGATIVE APPARATUS,  
complete, ready to attach to the Peerless Blue Printing  
equipment:

Size	AA—For 30-in.	add to price of blue print equipment \$	...
Size	A—For 42-in.	add to price of blue print equipment	....
Size	B—For 54-in.	add to price of blue print equipment	....
Size	C—For 66-in.	add to price of blue print equipment	....



## The Pease Peerless Negative Apparatus

On the opposite page is illustrated the Pease Peerless Automatic Blue Printing, Washing and Drying Machine with the Peerless Negative Apparatus. With this combination machine negative and brown line prints of highest quality as well as blue prints may be produced on either paper or cloth.

There is no method of making negative and brown line prints that can compare with the Peerless. All paper swells when it becomes wet, and cannot be returned to its original formation unless it be dried evenly and uniformly, and at the same time under tension. The Peerless is the only process which delivers negative and brown line prints, either paper or cloth, free from distortions and practically without shrinkage.

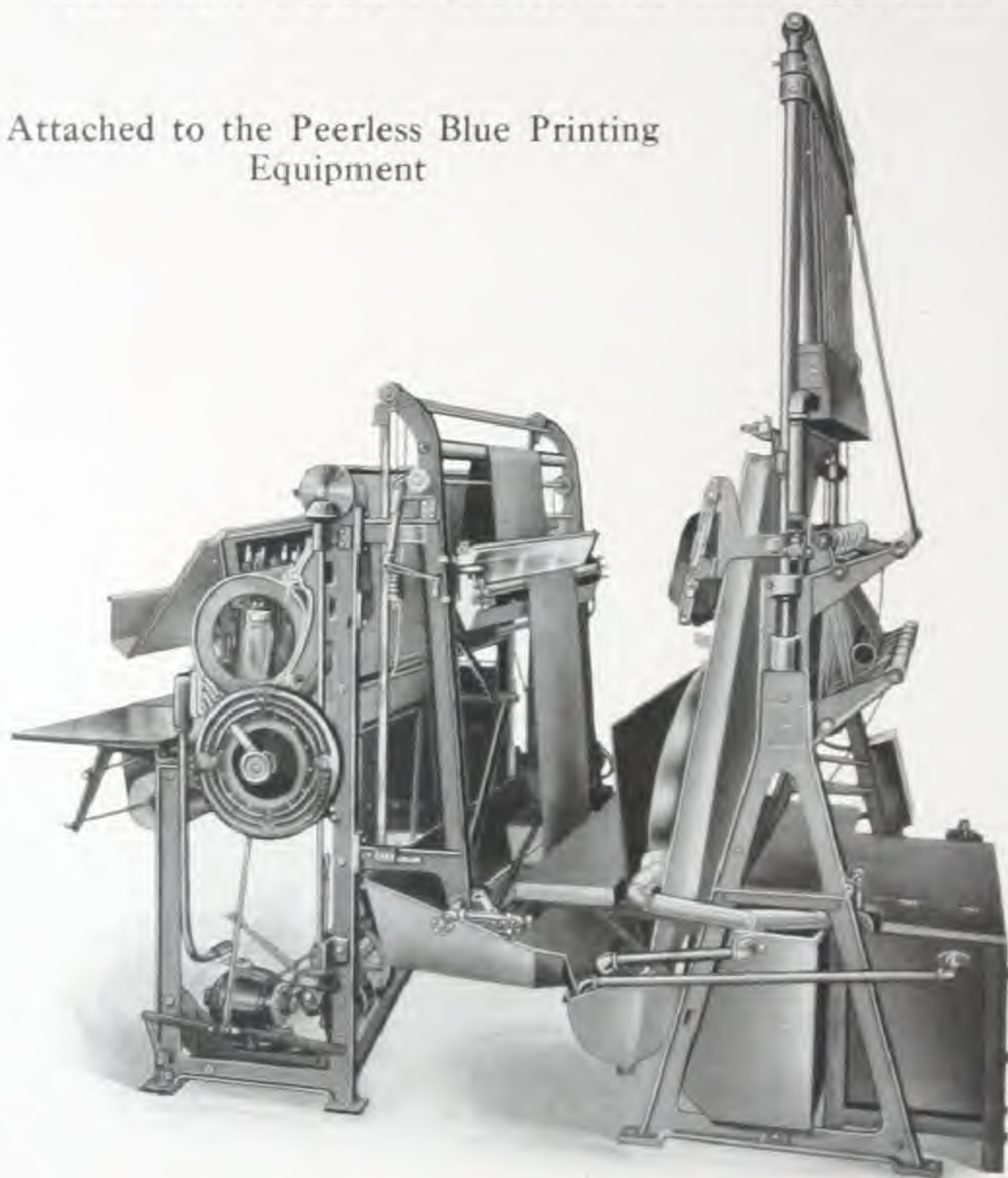
The illustration shows that the Negative Apparatus is bolted to the frame of the blue printing machine near the upper roll. By means of a perforated pipe, the exposed paper as it passes into the negative apparatus is subjected to a clear water wash of six feet, which thoroughly removes the nitrate of silver. It is then treated with the fixing solution, which is pumped into another spray pipe enclosed in a metal case, after which it receives a second clear water wash, thence passing over the dryer into the automatic rolling-up device. The same pump and spray pipe are used for the fixing solution for negatives and the bichromate of potash for blue prints, the arrangement being such that the pump and spray pipe may be readily flushed out to allow for change of solution. Changes from negatives to blue prints and *vice versa* may be made without stopping the machine. All solutions are returned by gravity to their proper tank underneath the machine. The clear water wash of the negative apparatus may be used for washing blue prints and blue line prints, and on account of the long wash the bichromate bath may sometimes be dispensed with if so desired.

In drying negative and brown line prints care should be used to keep the heat in the dryer down to the lowest possible point. This is true of all slow-printing papers, as excess of heat may affect the fiber of the paper.



## The Pease Peerless Direct Blue Line Apparatus

Attached to the Peerless Blue Printing  
Equipment



Occupies the same floor space as blue printing equipment shown on page 14.

No. B-6411—THE PEASE PEERLESS DIRECT BLUE LINE APPARATUS, consisting of automatic adjustable developing machine, electric brushing machine, motors, pumps and tanks for solutions, and all necessary accessories, complete:

Size	AA—30-in., add to price of blue print equipment..	\$ . . . .
Size	A—42-in., add to price of blue print equipment..	. . . .
Size	B—54-in., add to price of blue print equipment..	. . . .
Size	C—66-in., add to price of blue print equipment..	. . . .



## **The Pease Peerless Direct Blue Line Apparatus** (Continuous Electric)

On the opposite page is illustrated the Pease Peerless Automatic Blue Printing, Washing and Drying Machine in combination with the Peerless Direct Blue Line Apparatus. With this combination it is possible to make either blue prints, direct blue line prints, negative or brown line prints continuously, and to change from one to another without delay.

The usual process of making blue line prints (white background with blue lines) with an ordinary blue printing equipment is first to make a negative print from the tracing. After the negative has been washed and dried the blue line print is made from the negative print. Obviously this is a very slow process.

With the Peerless Direct Blue Line Equipment the negative print is eliminated, the blue line prints being made direct from the tracing. They are printed, developed, fixed, washed and dried by one continuous operation, at the rate of 75 to 100 linear yards per hour, operating on 220 volts direct current. Made on a high grade parchment paper they are used to great advantage for maps, plats, profiles, parts lists and all reference prints, thereby saving wear and tear on the original tracings. The lines, which are a sharp, clear blue on a pure white background, will not fade in the strongest sunlight. Alterations and additions may be made by means of the Pease Eradicating Solution and Special Blue Ink.

The apparatus is very compact and occupies no more floor space than the regular Peerless Blue Printing Equipment. The developing apparatus is bolted to the blue printing machine near the top roll, and is used only for Peerless Direct Blue Line Prints. The Direct Blue Line Paper, after exposure, passes through the developing machine, where a chemical bath is applied, after which it is washed by a spray of clear water; thence passes automatically under another spray pipe which applies a fixing or clearing chemical, and lastly it is given a second clear-water bath, after which it passes over the drying machine into the rolling-up device.

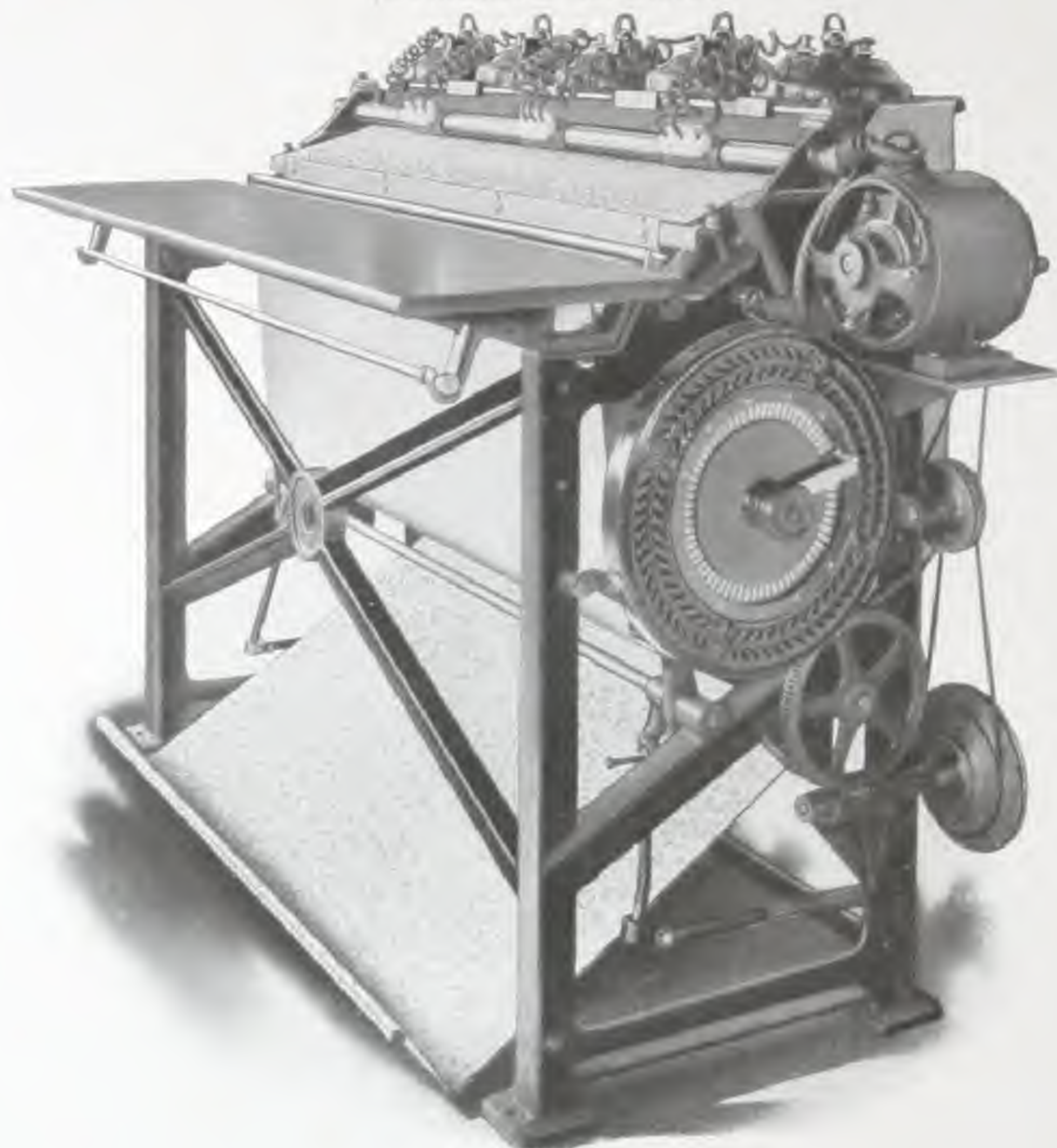
Direct Blue Line Prints can be made by the Peerless method as quickly as blue prints, and the only additional cost is in the high grade paper which it is necessary to use, and the chemicals. The apparatus can be connected to any Peerless Blue Printing Equipment.

With the equipment is included a sheet washer, which enables the operator to make single prints of either kind at any time.



# The Pease Standard Blue Printing Machine

(Continuous Electric)



No. B-6413

No. B-6413—THE PEASE STANDARD BLUE PRINTING MACHINE, complete, with variable speed motor and electric speed changing device, wired for D. C.:

	SPACE OCCUPIED	PRICE
Size AA—For paper up to 30 in. wide, 3 arc lamps.	4½x3 ft.	\$....
Size A—For paper up to 42 in. wide, 5 arc lamps.	5½x3 ft.	....
Size B—For paper up to 54 in. wide, 6 arc lamps.	6½x3 ft.	....
For A. C. add for 30-in. machine.....		50.00
For A. C. add for 42-in. or 54-in. machine.....		100.00

Best results are obtained with 220 volts direct current. If necessary to use alternating current we urge the use of 220 volts instead of 110 volts.



## The Pease Standard Blue Printing Machine

(Continuous Electric)

The Pease Standard Blue Printing Machine, illustrated on opposite page, was designed to meet the requirements of those not having sufficient blue printing to warrant the installation of a Peerless machine, and those desiring something lower in price.

These machines are constructed in a thoroughly mechanical manner, and in a variety of widths.

**The Frame** is of very rigid construction, so that the machine is shipped completely assembled with the exception of the lamps, which can be adjusted in a few minutes, and machine is then ready to attach the wires.

**The Printing Surface** consists of a short segment of plate glass, suspended in an iron frame, hinged at the bottom and held in place at the top by two loose pins. The operator is enabled easily to tip the glass forward for cleaning without removing the glass from the machine or taking off the contact belt. The glass is hung at an angle, thus preventing breakage from uneven expansion and contraction.

**The Contact Belt** is a heavy canvas of the required width, with its own selvage; there are no cord edges to ravel or break. This belt runs over metal rollers; no wood rollers are used. The belt is held in perfect contact at all times by means of tension springs which automatically take up the stretch, while an idler adjustment overcomes all tendency of the belt to travel sideways. This belt is very durable, but should it at any time need to be replaced the expense is nominal.

**Electrical Construction.** Standard arc lamps are used, suspended in adjustable collars. Each lamp has an independent switch and a cut-out enclosed in a metal box on the left-hand end of the machine. All speeds are controlled by a rheostat directly through a variable speed motor and gear, with three speed changes by means of a step pulley, giving a variation of speed from four inches per minute up to six feet per minute on 220 volts D. C., which is as fast as an operator can properly handle tracings. No unreliable friction discs are used, and the machine is so noiseless in operation that it can be conveniently placed in the drafting room.

**Capacity.** The machine has an output of 75 to 100 linear yards of printed paper per hour.

**The Operating Expense** is very low, each lamp consuming only 1 to 1¼ k.w. of electric energy per hour.



The Pease-Vertical Electric Blue Printing Machine  
(All-Steel Frame)



For shipment this machine is packed completely assembled. It is necessary only to remove the box, hang the lamp in place and connect the feed wires; after which it is ready to operate.



## The Pease-Vertical Electric Blue Printing Machine

(All-Steel Frame)



### GENERAL DESCRIPTION:

The Pease-Vertical Blue Printing Machine consists of two half-cylinders of glass held in place by a frame entirely of metal. It is self-contained, no part being attached to wall or ceiling; it can therefore be placed at any convenient point, and can be moved from one part of the room to another at will. The floor space required is only three feet square. Every machine carries the Pease guarantee of satisfaction and service.

### FRAME:

The frame being entirely of wrought steel, coated with corrosion-proof metal paint, is not affected by dampness; neither is it possible for the curtain rollers to wear a groove in the frame, thus letting the curtain sag and thereby causing poor contact, as is the case with machines with wooden frames. The frame of the Pease-Vertical is so rigid in construction and supports the glass cylinder in such a manner that the machine may be shipped to any part of the world completely assembled without danger of breakage. The frame in no way depends upon the glass for support.



# The Pease-Vertical Electric Blue-Printing Machine

(All-Steel Frame)



## CONTACT:

This is a vital point in any blue printing machine. In the Pease-Vertical the automatic curtains are self-adjusting and self-stretching, which assures absolutely perfect contact at all times. There is also an operating bar provided. When the curtain is rolled back in position to load the machine the roll is automatically lifted away from the glass to facilitate the placing of tracings and paper. Instead of the curtain being revolved against the glass cylinder it revolves in metal journals. The construction obviates the necessity of taking hold of the curtain in operating as the roller revolves independently of the operating bar. This makes it possible to load and unload the cylinder with the utmost speed.



## The Pease-Vertical Electric Blue Printing Machine

(All-Steel Frame)

### SPEED REGULATION:

By means of a patented liquid cylindrical control, which is noiseless, and gives absolutely uniform results. A wide range of speeds can be secured, from one foot in three seconds to one foot in forty-five seconds, thus meeting every possible requirement.

### LAMP:

Every machine is equipped with our high-power arc lamp, especially constructed for blue printing purposes. Wired for either direct or alternating current as desired.

We recommend the use of 220 volts D. C. or 220 volts 60-cycle A. C., as giving the most satisfactory results.

### LAMP CUT-OUT:

This is accomplished by means of an automatic quick-break switch, which can be set to trip at any point desired. When the lamp in its descent reaches this predetermined point the switch is automatically tripped and the current cut off.

### SIMPLICITY OF CONSTRUCTION:

This machine is so simple in construction that an intelligent boy can operate it in connection with his other duties with excellent results. The maintenance expense is also reduced to a minimum. The lamp is hung on steel cored, flexible copper wires, properly insulated, which are also the feed wires. No counterweights; no extra cables.

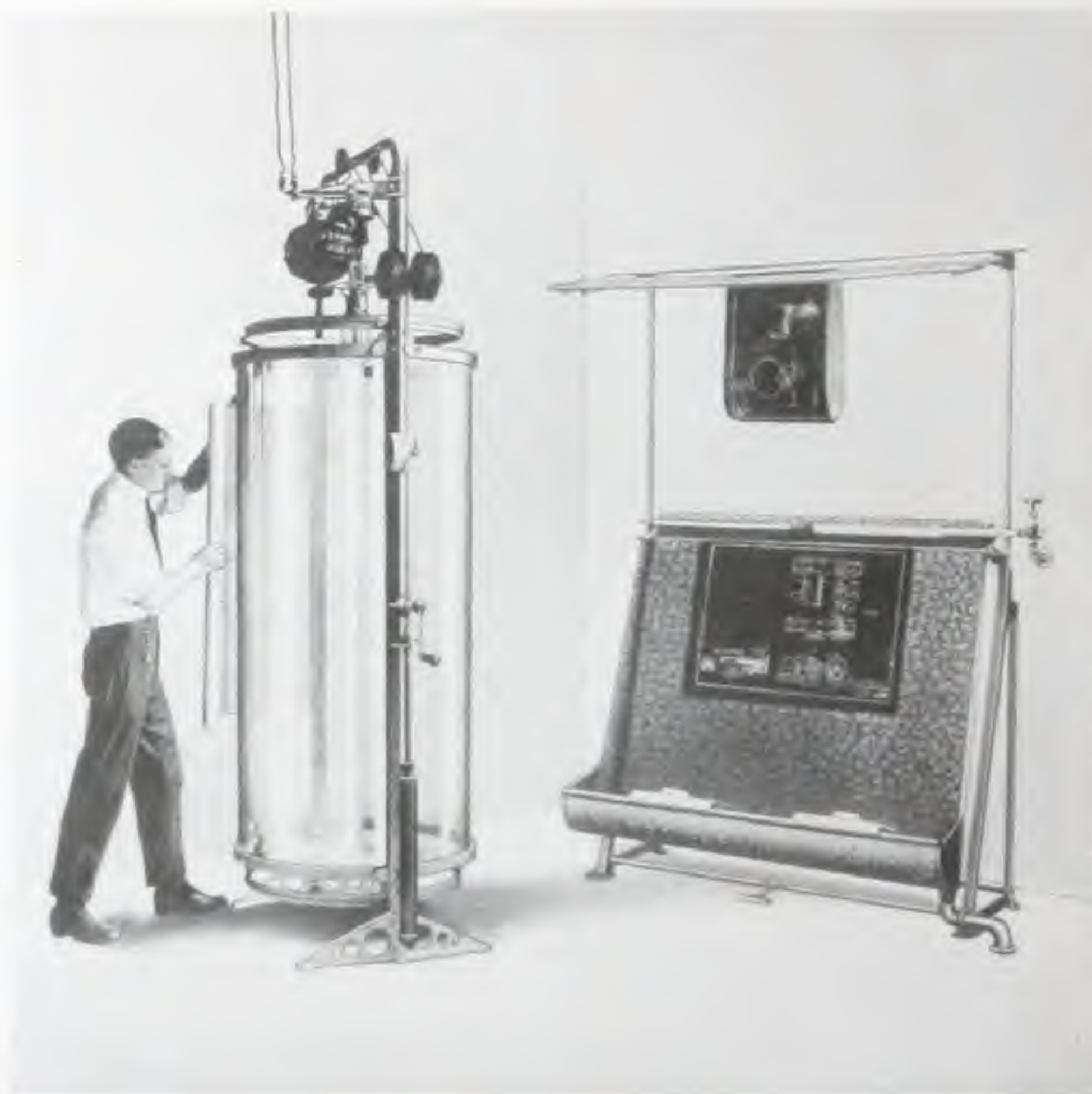
### CONVERTING HALF-CYLINDER TO FULL-CYLINDER MACHINES:

Unlike other vertical blue printing machines the frame of the full-cylinder and the half-cylinder Pease-Vertical is the same. The cost of converting a half-cylinder machine into a full-cylinder machine is only the price of the extra half-cylinder of glass and the canvas curtain with its operating mechanism. The purchaser can thus, at very small expense, double the output of his machine.



## The Pease-Vertical Electric Blue Printing Machine

(All-Steel Frame)



Showing a Pease-Vertical Blue Printing Machine installed in combination  
with a Pease Sheet Washer



## The Pease-Vertical Electric Blue Printing Machine

(All-Steel Frame)

### No. B-6416—FULL-CYLINDER PEASE-VERTICAL PRINTER.

	SIZE	FLOOR SPACE	SHIP. WT.	HEIGHT	PRICE
Style GJ .....	32x42	26x42	650 lbs.	7 ft.	\$240.00
Style JJ .....	42x42	32x49	750 lbs.	7 ft.	250.00
Style HM .....	36x60	28x45	800 lbs.	8 ft. 6 in.	280.00
Style JM .....	42x60	32x49	850 lbs.	8 ft. 6 in.	300.00
Style JP .....	42x72	32x49	970 lbs.	9 ft. 6 in.	350.00

### No. B-6417—HALF-CYLINDER PEASE-VERTICAL PRINTER.

	SIZE	FLOOR SPACE	SHIP. WT.	HEIGHT	PRICE
Style ½-GJ .....	32x42	26x42	600 lbs.	7 ft.	\$210.00
Style ½-JJ .....	42x42	32x49	650 lbs.	7 ft.	220.00
Style ½-HM .....	36x60	28x45	700 lbs.	8 ft. 6 in.	240.00
Style ½-JM .....	42x60	32x49	775 lbs.	8 ft. 6 in.	260.00
Style ½-JP .....	42x72	32x49	875 lbs.	9 ft. 6 in.	300.00

Discounts on application.

In ordering state kind of current and voltage.

If for A. C. also give frequency of cycle.

## Second Hand Blue Printing Machines

We usually have in stock some very good bargains in used machines of various types. These machines are taken by us out of active service in part payment for our automatic equipments. They are overhauled in our own plant and put in good working order, and are very different from what are ordinarily known as "second-hand" machines. Stock list sent on application.



## Blue Print Lamps

The lamps we furnish are especially constructed for photo-engraving and blue print work.



Style A



Style B



Style C

**STYLE A.** Enclosed long arc construction; furnished up to six amperes on 220 volts, or ten amperes on 110 volts, D. C. or A. C. Suited for continuous printing where several lamps are used in a bank.

No. C-5715—BLUE PRINT LAMP, 110 V. D. C.	Each.....	\$40.00
No. C-5716—BLUE PRINT LAMP, 220 V. D. C.	Each.....	40.00
No. C-5720—BLUE PRINT LAMP, 110 V. A. C.	Each.....	55.00
No. C-5721—BLUE PRINT LAMP, 220 V. A. C.	Each.....	55.00

**STYLE B.** A much higher power lamp for Vertical Printers. Made for seven amperes on 220 volts, or fifteen amperes on 110 volts, D. C. or A. C. Has adjustable external resistance for regulating arc.

No. C-5725—BLUE PRINT LAMP, 110 V. D. C.	Each.....	\$55.00
No. C-5726—BLUE PRINT LAMP, 220 V. D. C.	Each.....	55.00
No. C-5727—BLUE PRINT LAMP, 110 V. A. C.	Each.....	60.00
No. C-5728—BLUE PRINT LAMP, 220 V. A. C.	Each.....	60.00

**STYLE C.** A very high power lamp for fast printing in Vertical Blue Printing Machine. Uses No. 4024 globe. Made to take ten to twelve amperes on 220 volts, and fifteen to eighteen amperes on 110 volts. Has external adjustable resistance for regulating arc.

No. C-5718—BLUE PRINT LAMP, 110 V. D. C.	Each.....	\$65.00
No. C-5719—BLUE PRINT LAMP, 220 V. D. C.	Each.....	65.00
No. C-5722—BLUE PRINT LAMP, 110 V. A. C.	Each.....	70.00
No. C-5723—BLUE PRINT LAMP, 220 V. A. C.	Each.....	70.00



## Peerless Heat Resisting Globes

For Every Style of Lamp Used for Blue Printing  
(See diagram on next page.)



Of a special annealed or thermal glass, and will withstand the constant high temperature with less breakage than other globes. Peerless Globes are subjected to a vacuum test for accuracy in grinding. Although costing more than the ordinary globes, they are the cheapest in the end on account of the non-breakable and non-corroding qualities of the glass.

	PRICE
Less than one dozen, each.....	\$0.80
One dozen or more, per dozen.....	8.75
Lots of three dozen, per dozen.....	8.25
Case lots of six dozen, per dozen.....	7.50
Above prices apply to all globes except No. 4024.	
No. 4024—Each.....	\$ 3.00
Per case of six.....	16.25

## Peerless Carbons



These carbons are made especially for blue printing and photographic lamps, and burn longer and more uniformly than other makes, without clouding the globes. They are either solid or cored. Two solid carbons are best for direct current lamps; one solid and one cored for alternating lamps. They are packed in cartons of twenty-five.

	25	100
No. B-57020—PEERLESS CARBONS, solid, $\frac{1}{2} \times 12$ in.....	\$1.40	\$5.50
No. B-57021—PEERLESS CARBONS, cored, $\frac{1}{2} \times 12$ in.....	1.40	5.50
No. B-57022—PEERLESS CARBONS, solid, $\frac{1}{2} \times 9$ in.....	1.20	4.50
No. B-57023—PEERLESS CARBONS, cored, $\frac{1}{2} \times 9$ in.....	1.20	4.50

## Carbon Pliers



This is a most convenient tool for use in trimming the arc lamps used in electric blue printing machines. The hot carbons are easily removed and the new carbons cut accurately to any length desired without splintering, thus avoiding waste.

No. B-7212—Carbon Pliers, per pair .....\$1.25

## Globe Brush



Especially adapted for reaching into the globes and effectively cleaning them without touching them inside by hand or metal, thus avoiding breakage. It will increase the printing value of the machine greatly to clean the globes with this brush daily.

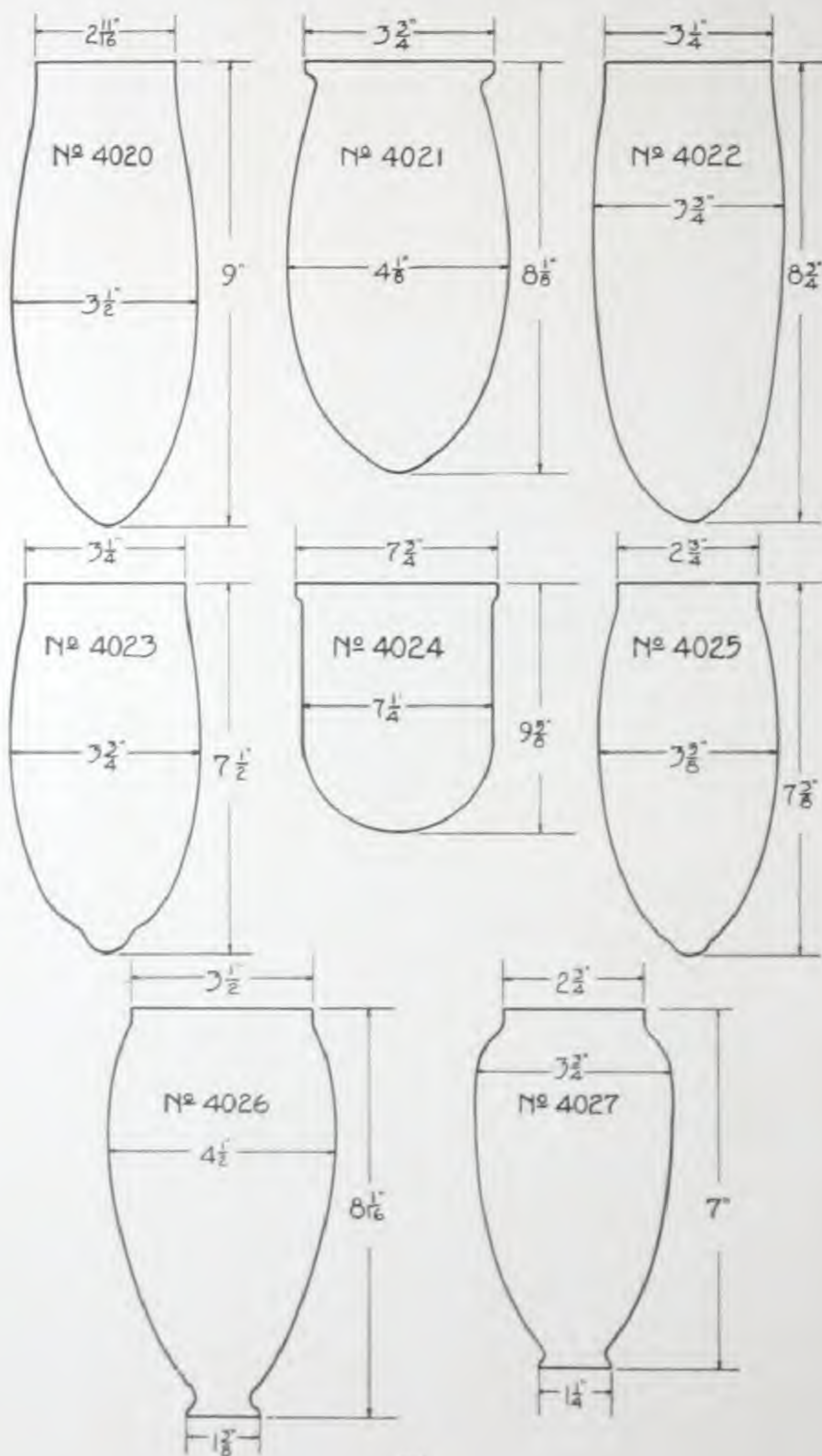
No. B-2212—Globe Brush.....\$1.00





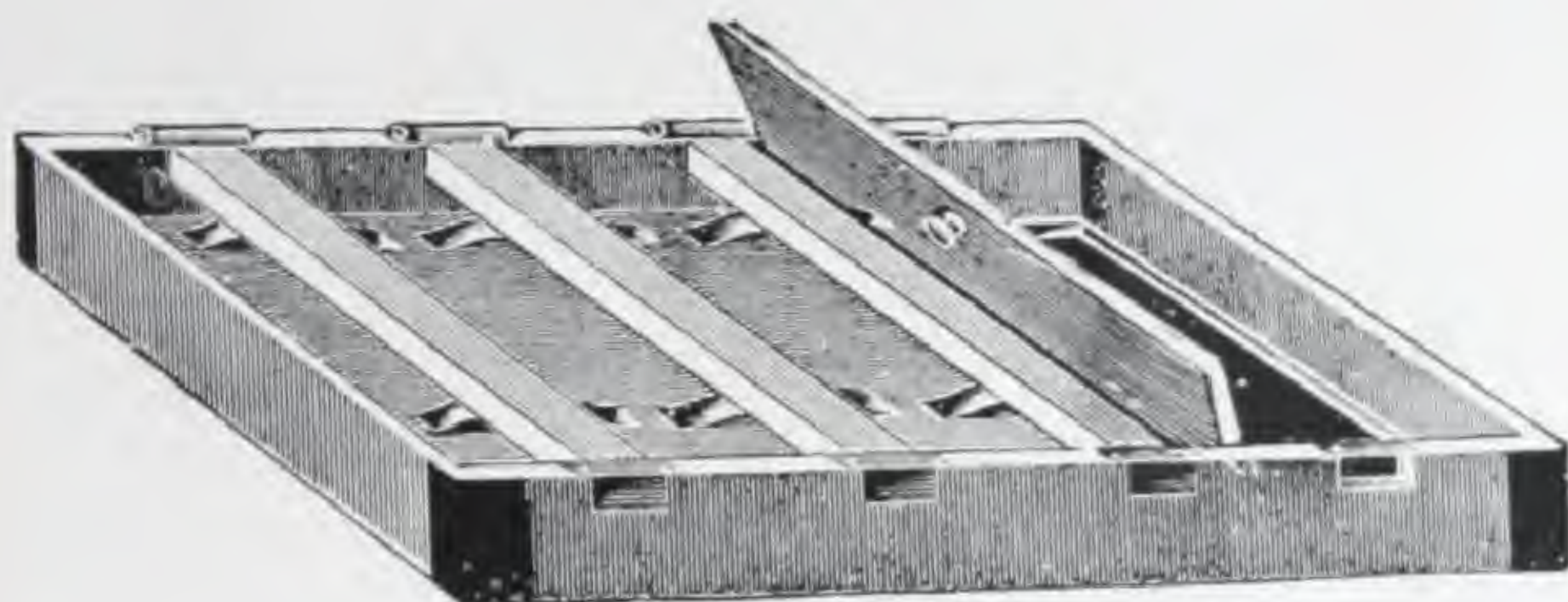
## Diagram of Globes for Blue Print Lamps

See preceding page for description and price.  
No. 4023 Globe is used on all Peerless Blue Printing Machines.





## Blue Print Frames



These blue print frames are made of carefully selected, thoroughly seasoned hardwood, are of perfect workmanship and combine all the latest improvements. They are made to stand exposure to the weather incidental to their use, and are less liable to warp and shrink, and thereby break the glass, than any other frame made.

	PRINTING SURFACE	FRAME ONLY	WITH PAD AND POLISHED GLASS
No. B-3242—BLUE PRINT FRAME...	20x24 in.	\$11.25	\$19.00
No. B-3243—BLUE PRINT FRAME...	24x30 in.	13.75	25.00
No. B-3244—BLUE PRINT FRAME...	24x36 in.	16.00	29.75
No. B-3245—BLUE PRINT FRAME...	30x42 in.	18.75	37.25
No. B-3246—BLUE PRINT FRAME...	36x48 in.	24.00	49.00
No. B-3247—BLUE PRINT FRAME...	36x60 in.	27.50	58.25
No. B-3248—BLUE PRINT FRAME...	42x60 in.	35.00	69.00
No. B-3249—BLUE PRINT FRAME...	42x72 in.	42.00	82.00

Any special size made to order.

All glass is carefully packed by an expert, and we are not responsible for breakage of glass in transit.

### Patent Office Sizes

Made of hardwood, well finished, with locked corners and brass trimmings, and answer very well for the small sizes. Their lightness is a good feature, as they can be easily handled.

	SIZE	EACH
No. B-3240—BLUE PRINT FRAME, with double thick glass and pad.....	12x16 in.	\$4.80
No. B-3241—BLUE PRINT FRAME, with double thick glass and pad.....	16x21 in.	7.50

### Felt for Printing Frames

No. B-3604—FELT.	70 in. wide, $\frac{1}{4}$ in. thick, per yard.....	\$4.50
No. B-3605—FELT.	70 in. wide, $\frac{3}{8}$ in. thick, per yard.....	5.40



## Blue Print Cars



No. B-3250

This car is a convenient apparatus, which can be run on iron tracks. The frame is made to revolve and tilt to any angle, to receive the direct rays of the sun; can be clamped in any position; the frame can be turned over for the insertion of blue print paper. The ironwork is of enamel finish, the woodwork is of oak, highly finished.

### Price Without Frame

	CAR ONLY	TRACK ONLY
No. B-3250—CAR, for frames up to and including 30x42 in.	\$21.50	\$10.00
No. B-3251—CAR, for frames up to and including 36x60 in.	25.00	15.00



No. B-3252

May be used with or without tracks and carries the largest frames with ease.

The frame is firmly held in position for loading as shown in the illustration. The brace swings back and drops into the guards at the center, thus allowing the frame to revolve; it can be clamped at any angle.

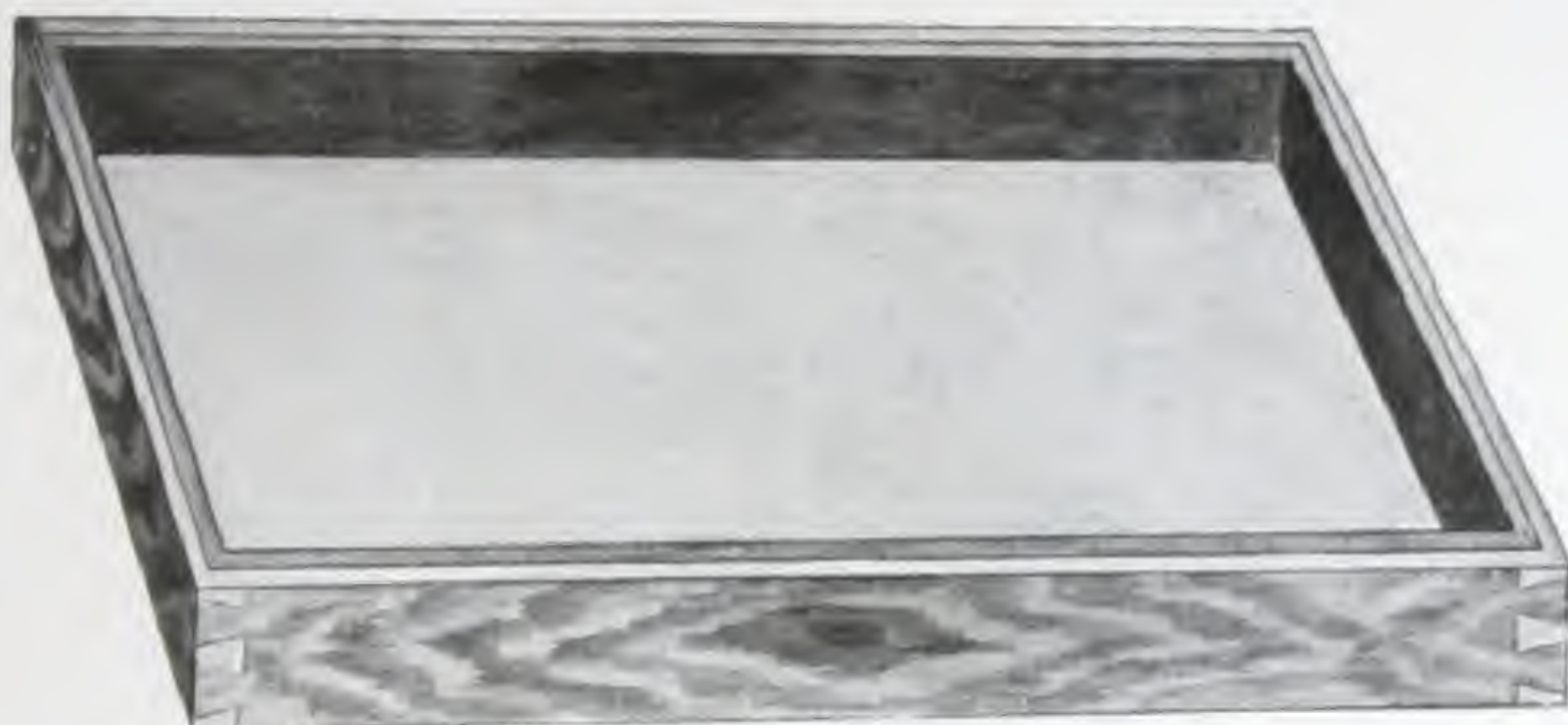
### Price Without Frame

	CAR ONLY	TRACK ONLY
No. B-3252—CAR, for frames up to and including 30x42 in.	\$30.00	\$10.00
No. B-3253—CAR, for frames up to and including 48 in. wide	35.00	15.00
No. B-3254—CAR, for frames up to and including 60 in. wide	45.00	16.00

NOTE: When ordering car with frame, give width of opening through which it is to pass; car only, give also outside dimensions of frame.



## Bath Trays



	SIZE	ZINC	GALV. IRON
No. B-8816—BATH TRAY.....	20x24 in.	\$ 7.00	\$ 6.60
No. B-8817—BATH TRAY.....	24x30 in.	8.50	8.10
No. B-8818—BATH TRAY.....	30x42 in.	9.50	9.00
No. B-8819—BATH TRAY.....	36x60 in.	15.00	14.00
No. B-8820—BATH TRAY.....	42x60 in.	17.00	16.00
No. B-8821—BATH TRAY.....	45x75 in.	21.00	20.00

Other sizes to order.

Lead and copper lined trays are not attacked by chemicals and are especially adapted for brown process prints.

Prices on any size upon application.

## Blue Print Wringer



The frame is made of malleable iron, thoroughly galvanized to prevent rusting. The rubber rolls are of the best quality.

No. B-9615—BLUE PRINT WRINGER, 24 in.....	\$40.00
No. B-9616—BLUE PRINT WRINGER, 30 in.....	48.00
No. B-9617—BLUE PRINT WRINGER, 36 in.....	54.00
No. B-9618—BLUE PRINT WRINGER, 42 in.....	60.00



## Standard Blue Print Dry Box or Oven

(For Drying Tray-Washed Prints)



This drying oven is constructed on scientific principles, and dries by circulation rather than by great heat. It is constructed of galvanized iron on a stiff angle-iron frame, and is arranged to open at the top and also at one end for inserting and removing prints. Can be used with either steam, gas or electricity for drying. Easily knocked down for shipment.

### Price List

	SIZE, INCHES	DRY BOX ONLY	WITH GAS HEATER	WITH ELECTRIC HEATER	WITH STEAM COIL
No. B-1760—DRY BOX..	24x50x54	\$40.00	\$70.00	\$95.00	\$85.00
No. B-1761—DRY BOX..	36x50x54	45.00	80.00	105.00	95.00
No. B-1762—DRY BOX..	36x60x54	50.00	90.00	115.00	105.00
No. B-1763—DRY BOX..	48x60x60	60.00	105.00	135.00	125.00



## The Pease Sheet Washer

Size 42-in. Washes prints 42x72 in.; floor space, 4½x2 ft.



This Washer we specially recommend for use in connection with our Pease-Vertical Blue Printing Machine or with sun frames. The prints are washed with running water, entirely avoiding the use of flat tanks, which occupy a great deal of space, and in which the water soon becomes foul with chemicals and unfit for use.

The method of washing is to fold the print over one of the rods provided, and hang it in the tray under the water spray. In this position both sides of the print are thoroughly washed, after which it is suspended on the rack to dry. Provision is made for holding small prints under the spray without a rod. The prints, being wet on printed side only, dry in one-third the time required when washed in trays, and are much less distorted.

The machine saves time and space, washes the prints perfectly and avoids dripping prints and wet floors.

No. B-6420—PEASE SHEET WASHER. Each.....	\$50.00
For each No. B-8840 Blue Print or Negative Solution Tray and No. B-2203 10-in. Brush add.....	7.00
For No. B-8839 White Print Clearing Chemical Tray and No. B-2203 10-in. Brush add.....	8.00



## The Pease Sheet Washing and Drying Machine

Size 42 in. Washes prints up to 42x72 in.; floor space, 5x3 ft.



This machine does away with the large washing tanks and drying paraphernalia usually occupying a great deal of valuable space in a blue print room, and has been found to be a great labor and time saving device, with many advantages.

The washing of the prints is accomplished by a spray of running water flowing over the printed side of the paper only. Prints are not soaked through as in the old process, and the water coming in contact with only one side of the paper, leaves it in a condition to dry in about one-third the time formerly required.

No. B-6421—THE PEASE SHEET WASHING AND DRY-	
ING MACHINE. Each.....	\$150.00
For each No. B-8840 Blue Print or Negative Solution	
Tray and No. B-2203 10-in. Brush add.....	7.00
For White Print Clearing Chemical Tray No. B-8839	
and 10-in. Brush No. B-2203 add.....	8.00



## The Pease Sheet Washing and Drying Machine

(With Drying Oven)

Size 42-in. Washes prints 42x72 in.; floor space, 5x5½ ft.

This machine is the same as shown on preceding page, with the addition of separating and drying rack with drying oven.

In either machine the print is placed on the drying rod before washing and remains there during the entire process of washing, wiping and drying.

Allows prints to be washed and delivered fully dry at the accumulating rack as fast as the operator can run them through the washing device, which will be, in some cases, about sixty per hour. This brings the capacity of the machine up to the requirements of the largest vertical printer and gives dry prints in from ten to fifteen minutes after printing.

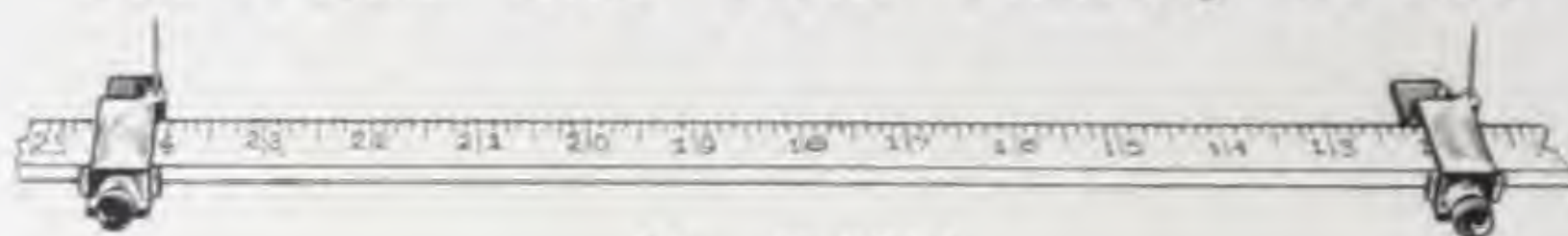


	EACH
No. B-6422—WASHING AND DRYING MACHINE, with gas heater .....	\$200.00
No. B-6423—WASHING AND DRYING MACHINE, with electric heater .....	250.00
For each No. B-8840 Blue Print or Negative Solution Tray and B-2203 10-in. Brush add. ....	7.00
For No. B-8839 White Print Clearing Chemical Tray and No. B-2203 10-in. Brush add. ....	8.00

If necessary drying oven can be equipped with steam coil, but we do not recommend it.



## The Pease Blue Print Pinning Device



No. B-7213

No. B-7213—BLUE PRINT PINNING DEVICE. This device is used for registering Blue Prints for trimming in quantity to a uniform size. Especially convenient for small prints.

A thirty-six-inch rule is provided with two adjustable clamps fitted with needle points. In operation the points are set on the rule at the desired width. The two opposite corners of the trimming line of the prints are placed over the needle points until fifteen to twenty-five prints have thus been registered, after which they are all trimmed at once by a shear as shown in cut below, and on following page.

Each ..... \$2.50

## Blue Print Trimming Shears



No. C-7715

This shear was designed for cutting up paper or trimming blue prints in quantities to uniform sizes. It can be attached to the end of any substantial table; will cut fifteen to twenty sheets at once; is provided with a strong foot clamp rising parallel, and self-adjusting to all thicknesses.

	EACH
No. C-7715—BLUE PRINT TRIMMING SHEARS, 30-in. . .	\$55.00
No. C-7716—BLUE PRINT TRIMMING SHEARS, 45-in. . .	80.00



### Perfection Paper Shears



TRIMMING

	WIDTH	EACH
No. C-7726—PERFECTION PAPER SHEAR...	14½ in.	\$27.00
No. C-7727—PERFECTION PAPER SHEAR...	19 in.	30.00
No. C-7728—PERFECTION PAPER SHEAR...	24 in.	35.00
No. C-7729—PERFECTION PAPER SHEAR...	29 in.	42.00

### Blue Print Table Trimming Shears



This Table-Shear was designed for cutting up paper or trimming blue prints in quantities to uniform sizes. Will cut fifteen to twenty sheets at once; is provided with strong foot clamp, rising parallel and self-adjusting to all thicknesses.

Table Top is accurately ruled with lines one inch apart and provided with stationary scale at each side divided into eighths of an inch.

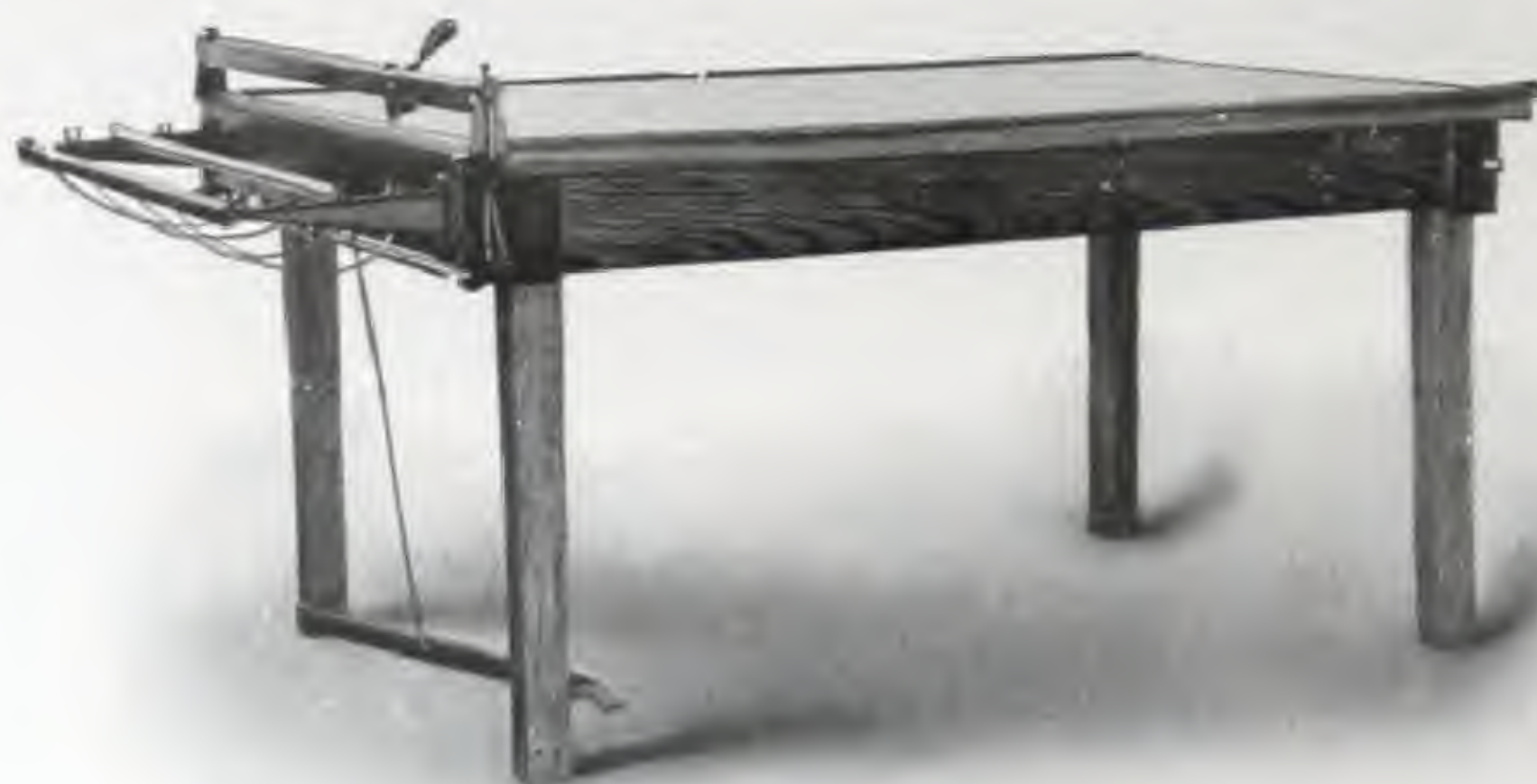
Front gauge is easily removed and quickly adjusted for length.

This machine will soon pay for itself.

No. C-7720—BLUE PRINT TABLE TRIMMING SHEAR,	
width 45 inches. Each.....	\$125.00
Other sizes to order.	



## Hand Cutting and Trimming Table



No. B-9101

This **Cutting and Trimming Table** is constructed of hardwood with metal trimmings, and is easily knocked down for shipment. The cutting and trimming device at the end is provided with a parallel clamp, operated with a foot treadle which holds the paper, tracing cloth or print securely while the revolving cutting knife is used.

The **Revolving Cutting Knife** is rotated positively by mechanical means, not depending upon friction against blade or paper, and therefore will cut the thinnest paper perfectly. Will also cut five to ten sheets at once.

The device is rapid and convenient in operation, and will trim a very narrow strip from the paper or print.

The apparatus was designed for cutting up blue prints made on our continuous machines, and will CUT ACCURATELY TO A LINE, trimming the print perfectly while it is being cut from the roll. The table top is ruled with lines one inch apart parallel with trimming knife, and provided with scale at front edge, divided into eighths of an inch.

### Price List

No. B-9101—HAND CUTTING AND TRIMMING TABLE.	
Size, 4x6 ft., complete.....	\$75.00
No. B-9102—Same with light-proof box, in place of basket....	85.00
Drawers, extra, each.....	5.00
No. B-6424—TRIMMING MACHINE only, complete without table; can be attached to any table.....	50.00
No. B-6425—Same with light-proof box.....	60.00
If furnished without foot clamping device, deduct.....	10.00

Other sizes to order.



## Motor Driven Cutting and Trimming Table

For Blue Prints, Tracing Cloths, etc.



No. B-9103

Designed for cutting up blue prints made on our continuous machines. Will cut accurately to a line, trimming the print perfectly while being cut from the roll.

It is provided with a parallel clamp, operated with a foot treadle, which holds the paper, tracing cloth or print securely while the revolving cutting knife is used. This device is very rapid and convenient in operation, and will trim a very narrow strip from the paper or print. The revolving cutting knife is motor driven and is rotated positively by mechanical means, not depending upon friction against blade or paper, and therefore will cut the thinnest paper perfectly. Will also cut five to ten sheets at once. Knife is electrically operated in either direction at will; is stopped or started at any point by a wrist controlled switch, which leaves both hands of operator free to handle the paper or prints.

Table is constructed of hardwood with metal trimmings, arranged to be easily knocked down for shipment.

Electric equipment is complete and arranged so it can be connected to any incandescent light socket.

### Price List

	SIZE A FOR 42-IN. PAPER	SIZE B FOR 54-IN. PAPER	SIZE C FOR 66-IN. PAPER
No. B-9103—Complete with motor and basket as shown for D. C. ....	\$115.00	\$125.00	\$135.00
No. B-9104—Same for A. C. ....	115.00	125.00	135.00
No. B-9105—Same with light-proof box in place of basket for D. C. ....	125.00	135.00	145.00
No. B-9106—Same for A. C. ....	125.00	135.00	145.00
No. B-6427—Power trimming machine only, with box for D. C. ....	100.00	110.00	120.00
No. B-6429—Same for A. C. ....	100.00	110.00	120.00
No. B-6426—Trimming machine only, with basket for D. C. ....	90.00	100.00	110.00
No. B-6428—Same for A. C. ....	90.00	100.00	110.00
No. B-9107—Table only ....	25.00	25.00	25.00
With drawers in table, add for each drawer. . .	5.00	5.00	5.00
For rack underneath table and 12 cans for paper, add ....	25.00	25.00	30.00



## The Pease Tracing Tables



Especially designed for use in connection with the Pease Peerless Blue Printing Equipment. Is constructed of hardwood with metal trimmings, and is easily knocked down for shipment.

This table is intended to be conveniently located in front of the printing machine, so that the operator may have the tracings within easy reach. It is made four feet by six feet. The table can be provided with two shallow drawers, of as large size as possible, to hold the tracings not being used, while a rack is provided underneath the table together with twelve air-tight metal cans in which to keep the sensitized paper.

No. B-9108—PEASE TRACING TABLE, complete.

Size, 48x72 inches. Each.....	\$50.00
Drawers, extra. Each.....	5.00

## The Pease Tracing and Trimming Tables

The Pease Tracing Table No. B-9108 will be furnished, when desired, with motor driven trimming device mounted on left-hand end, as shown in cut on page 43.

No. B-9109—TRACING AND TRIMMING TABLE, with motor for direct current.

No. B-9110—Same for alternating current.

Size A—For 42-in. paper.....	\$140.00
Size B—For 54-in. paper.....	150.00
Size C—For 66-in. paper.....	160.00



## BLUE PRINT PAPER COATING MACHINERY

THE Pease Simplex and the Pease Duplex Coating Machines mark an epoch in the manufacture of machinery for sensitizing papers and cloths.

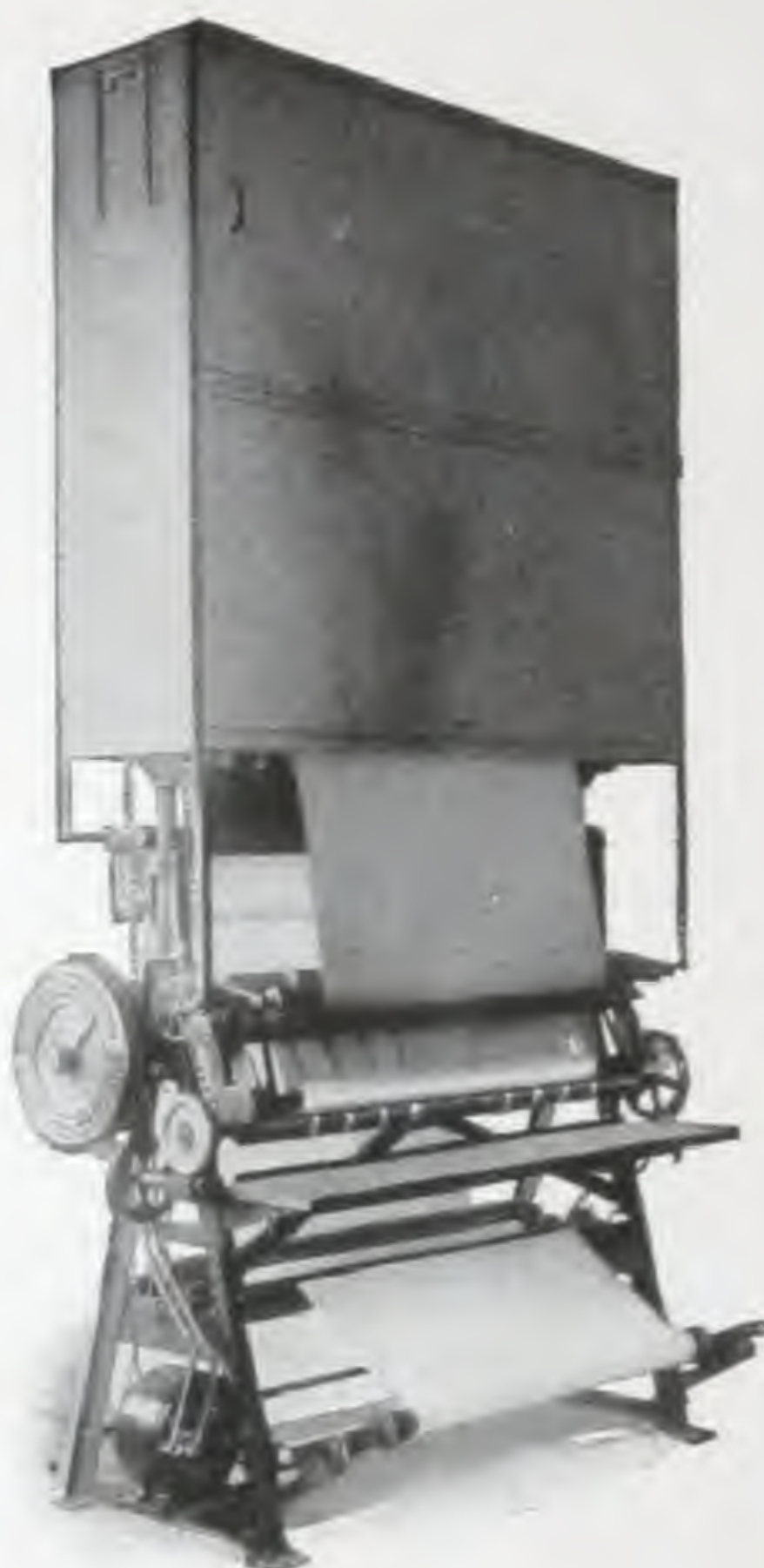
Heretofore coating machines have been mostly home-made affairs, crude in construction, and occupying a large amount of floor space. Our machines are built on scientific principles, in a thoroughly mechanical manner, and are entirely of metal. The heat in the drying oven is so evenly distributed that the paper dries more quickly and produces better results than with the old time slow drying machines.

Table of weights of uncoated paper in  
100-yard rolls

	30-IN.	36-IN.	42-IN.	54-IN.
Thin .....	9.5 lbs.	11.5 lbs.	13 lbs.	17 lbs.
Semi-Medium ..	12 lbs.	14 lbs.	16 lbs.	21 lbs.
Medium .....	14 lbs.	17 lbs.	20 lbs.	25 lbs.
Thick .....	21 lbs.	25 lbs.	29.5 lbs.	36.5 lbs.



## The Pease Simplex Blue Print Paper Coating Machine



No. B-6430

### Space Occupied

Size A—42-in. machine.	3 ft. x 5 ft.
Size B—54-in. machine.	3 ft. x 6 ft.
Size C—66-in. machine.	3 ft. x 7 ft.
Height over all, 9½ ft.	

Capacity per hour, 150 to 200 linear yards, or 25 to 30 50-yd. rolls per day.



## The Pease Simplex Blue Print Paper Coating Machine

(For Sensitizing Papers and Cloths)

The illustration on the opposite page shows the Pease Simplex Paper Coating Machine, a valuable addition to any large blue print room, suitable for coating either paper or cloth. It enables the operator to have absolutely fresh paper at all times; does away with the necessity of carrying a large supply of coated paper; prevents loss through spoiled paper, and avoids the annoyance of being out of paper when most urgently needed.

This machine is so simple in its operation that the same man who runs the blue printing machine can easily handle the coating machine at the same time. Within a half-hour after the machine is started the first fifty-yard roll of coated paper is ready for printing, and it is only necessary for the operator to return to the machine once every fifteen minutes when a bell rings (or thirty minutes if running hundred-yard rolls), to cut off one roll and start the next.

This machine is thoroughly practicable in every way; is entirely self-contained, noiseless in operation, and requires a floor space of only three feet by five feet. It is not necessary to provide a special dark-room, but any available space in the blue print room may be used. The machine is capable of producing the finest quality of sensitized paper or cloth, and is being used by many large manufacturers and U. S. Government departments. Many of them are also in use in foreign countries, with most excellent results.

The process of coating paper requires no technical knowledge when our ready-mixed coating chemicals are used, the essential feature being that the coating roll, scraper and solution tray be kept perfectly clean, and these are so arranged that they are readily accessible for this purpose. The cost of operating is nominal, requiring only about fifty cubic feet of gas per hour; or, if electricity is used for drying, about ten k.w. will be consumed.



## The Pease Simplex Blue Print Paper Coating Machine in Operation



### Specifications

The Pease Simplex Blue Print Paper Coating Machine, for coating paper and cloth, provided with one set of coating rolls and scraper; overhead gas heated drying oven, variable speed motor and electric speed control, and automatic measuring and rolling-up device, complete:

No. B-6430—PEASE SIMPLEX BLUE PRINT PAPER COATING MACHINE, with Gas Heater.

Size A—42-in. machine.....	\$.....
Size B—54-in. machine.....	.....
Size C—66-in. machine.....	.....

No. B-6431—PEASE SIMPLEX BLUE PRINT PAPER COATING MACHINE, with Electric Heater.

For either size add to price of machine with Gas Heater. \$50.00

In ordering, be sure to give current and voltage required for the motor. If for alternating current also state frequency of cycle.



## The Pease Simplex Blue Print Paper Coating Machine

**Method of Operation.** A mill roll of unsensitized paper, weighing from 150 to 200 pounds, is placed on a spindle at the foot of the machine, as shown in illustration. The end of the paper is carried back over the coating roll, up past the glass scraper which is made adjustable to meet varying conditions, into the drying oven, over the top roll, and down into the rolling-up device. The operator attaches the end of the paper to a small split shaft which is then placed in the winding-up device, where the sensitized paper is automatically wound up into a tight roll. There are two measuring devices provided; one which gives the total number of yards run, and the other so arranged that a bell strikes whenever a roll of the desired length—ten, twenty-five, fifty or one hundred yards—has been run, thus notifying the operator to cut off one roll and start the next.

**Mixing Jars.** In the illustration on the opposite page will be seen a stand holding two jars for the proper and convenient mixing of the coating chemicals necessary to the operation of the machine, and which we furnish with each machine.

In the upper jar about five gallons of water is placed and into this is emptied one can of the dry sensitizing chemicals.

The solution then filters through chamois-skin into the jar below, where it is ready for use and may be drawn off as required through the vulcanized rubber faucet provided. Very explicit directions for assembling and operating are sent with each machine.

**Paper.** We carry in stock and can furnish promptly uncoated Blue Print Paper any width desired, in rolls of 150 to 200 lbs. each, any quality or thickness, especially suitable for use with the Pease Coating Machines. Samples and prices on application.

**Coating Chemicals.** We prepare the chemicals for coating, compounded in dry form and packed in air-tight cans, ready to dissolve in water. Will keep indefinitely. Prices on application.



# The Pease Duplex Coating Machine

(For Sensitizing Papers and Cloths)



No. B-6432

## Space Occupied

Size A—42-in. machine. . . . .	5½ ft. x 8 ft.
Size B—54-in. machine. . . . .	6½ ft. x 8 ft.
Height over all, 9½ ft.	



## The Pease Duplex Coating Machine

(For Sensitizing Papers and Cloths)

The illustration on the opposite page shows the Pease Duplex Coating Machine, which occupies a floor space only eight feet long. With this machine an output of 300 to 600 yards per hour can be maintained, and they are today the simplest and most complete machines ever built for this purpose, both as to mechanical construction and operation. Our own Coating Department has been using these machines for many years, for the most difficult coating.

The machine is arranged to receive a full mill roll of paper (150 to 200 lbs.), which is automatically and evenly coated with the solution, and after passing through the drying oven, which is mounted over the top of the machine, is automatically rolled up into measured rolls, ready for wrapping. The paper is super-dried by means of an air-drying heater and a motor-driven circulating fan, thus insuring absolutely dry paper coated in any condition of atmosphere.

The driving mechanism gives the same surface speed to the paper at all times during the entire run, and does not give an increased speed as the re-wound roll increases in size. Absolutely uniform results are therefore obtained without constant readjustment of speeds.

The machine is operated by an electric motor provided with our specially designed rheostat, which gives a large range of speeds to accommodate various grades of paper and conditions of atmosphere. It is simple and noiseless in operation, and is so constructed that all parts are readily accessible for cleaning, adjustment and repairs.

The machine is in every case self-contained and substantially constructed entirely of metal. The rollers are all of brass or rubber covered; true and positively driven or ball bearing, thus insuring the delivery of the paper smooth and free from creases. The glass scraper is adjustable to meet the requirements of all papers and cloths. Each machine is equipped with an accurate measuring and counting device, which indicates the number of yards wound into each roll; also a bell rings at every 50 yards.



## Specifications

No. B-6432—THE PEASE DUPLEX BLUE PRINT PAPER COATING MACHINE of double standard type, for coating papers and cloths, provided with two sets of coating rollers and adjustable glass scraper, double hot-air overhead gas-heated drying oven, and automatic measuring and rolling-up device. Capacity 300 to 600 yards per hour.

PRICE

Size A—For paper and cloth up to 42 inches wide, complete with motor and speed regulator..... \$.....

Size B—For paper and cloth up to 54 inches wide, complete with motor and speed regulator.....

No. B-6433—THE PEASE DUPLEX BLUE PRINT PAPER COATING MACHINE of double standard type, for coating papers and cloths, provided with two sets of coating rollers and adjustable glass scraper, double hot-air overhead electric-heated drying oven and automatic measuring and rolling-up device. Capacity 300 to 600 yards per hour.

PRICE

Size A—For paper and cloth up to 42 inches wide, complete with motor and speed regulator..... \$.....

Size B—For paper and cloth up to 54 inches wide, complete with motor and speed regulator.....

For either size, add \$150 to price of No. B-6432.

In ordering, be sure to state current and voltage required for the motor. If alternating current also state frequency of cycle.

## Jars for Sensitizing Solutions



With each sensitizing machine we furnish two ten-gallon jars on a stand for holding the solutions. Larger sizes can be furnished at slight extra cost.



## Unsensitized Blue Print Paper

Success in coating depends largely on the paper. Very few paper manufacturers produce a paper suitable for sensitizing. Our connection with several of the leading paper mills enables us to offer high-grade paper suitable for coating purposes, in mill rolls, at very attractive prices. We carry a large stock at all times. Ask for samples.



No. B-8072	—SUPERIOR	Thin	Per lb.
No. B-8072½	—SUPERIOR	Semi-Medium	Per lb.
No. B-8073	—SUPERIOR	Medium	Per lb.
No. B-7062	—ROYAL	Thin	Per lb.
No. B-7063	—ROYAL	Medium	Per lb.
No. B-6052	—PURITAN	Thin	Per lb.
No. B-6053	—PURITAN	Medium	Per lb.
No. B-5042	—PERFECTION	Thin	Per lb.
No. B-5043	—PERFECTION	Medium	Per lb.
No. B-1022	—VERI-STRONG	Thin	Per lb.
No. B-1023	—VERI-STRONG	Medium	Per lb.

## Unsensitized Blue Print Cloth in 10-Yard Rolls

	WIDTH, INCHES	30	36	42	54
No. B-2081—PERFECTION CLOTH,					
Extra Thin		\$4.00	\$4.75	\$5.50	\$...
No. B-2083—PERFECTION CLOTH,					
Medium		3.75	4.50	5.25	7.50

Prices on 50-yard and 100-yard rolls on application.

## Waxed Paper

No. B-9081—RED OR ORANGE, in original rolls, for wrapping sensitized paper. Price per pound.....\$...



## Coating Chemicals



The compounding of the necessary chemicals for sensitizing paper has long been considered a mystery requiring the services of an expert chemist. We have greatly simplified the process by compounding these chemicals in dry form and packing them in air-tight cans. It is only necessary to dissolve the contents of one of these cans in water. The dry compound, if kept according to our instructions, will retain its properties indefinitely. One can of the prepared chemical will make sufficient solution to coat sixteen to twenty-four fifty-yard rolls of paper.

We prepare coating chemicals in the following speeds:

No. B-3555

No. B-3556—XX-ELECTRIC. Very fast printing speed. Suitable only for electric printing with low-power lamps. Per lb., \$.....

No. B-3555—X-ELECTRIC. Fast printing speed. Suitable only for electric printing. Per lb., \$.....

No. B-3554—ELECTRIC. Requires about thirty to forty seconds in bright sunlight. Is suitable for electric printing. Per lb., \$.....

No. B-3553—RAPID. Requires about one minute exposure in sunlight. May be used for electric printing with high-power lamps. Best adapted for making blue-line prints from negatives. Per lb., \$.....

No. B-3552—S-RAPID. Requires 1½ to 2 minutes in bright sunlight. Gives fine color and detail. May be used for electric printing with high-power lamps. Per lb., \$.....

No. B-3551—SLOW. Requires three to four minutes in bright sunlight. Adapted for prints from photographic negatives. Per lb., \$.....

Put up in air-tight cans, containing four to five pounds each.

## Cold Water Paste

Is very adhesive and is therefore specially adapted for use with continuous blue printing machines, for joining the ends of the rolls of sensitized paper. For this purpose it is far superior to glue or any other paste.



	1½ LBS.	5 LBS.	10 LBS.	25 LBS.	
No. B-3501—Per can.....	\$0.45	\$1.25	\$2.00	\$5.00	No. B-3501



## COATING DEPARTMENT

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OUR Coating Department is completely equipped with the Pease Duplex and Pease Simplex Coating Machines.

We sensitize all widths of paper up to 66 inches, and cloth up to 54 inches, inclusive.

Capacity, five hundred 50-yard rolls per day.

Negative and Brown Line Papers.

Blue and Brown Print Cloths.

Direct Blue Line Paper.

All papers coated to order. No old stock.

We solicit a trial order.



## Sensitized Blue Print Papers

We give special attention to the coating of papers for use on continuous electric blue printing machines. All rolls are guaranteed full measure, and in one piece.

We coat paper any speed required. Our regular speeds are as follows:

**X-Electric**—The fastest printing speed. Suitable only for electric printing.

**Electric**—Requires about thirty to forty seconds in bright sunlight. Is suitable for electric printing.

**Rapid**—Requires about one minute exposure in bright sunlight. Best adapted for making blue prints from negatives. Suitable for electric printing where fine color is more desired than speed.

**Slow**—Requiring about three to four minutes in bright sunlight. Adapted for photographic prints from negatives.

We recommend either Electric or Rapid for printing blue lines from negatives.

Please be sure to specify speed required. In the absence of other instructions orders will be filled with X-Electric.

## Veri-Strong Blue Print Papers



Reduced Facsimile of Label

These papers are made from chemically pure linen rag stock, and are recommended for very high-class work.

	WIDTH, INCHES	30	36	42	54
No. B-1121—VERI-STRONG PAPER, Extra thin.					
Per roll of 10 yards.		\$ 1.00	\$ 1.25	\$ 1.40	
Per roll of 50 yards.		4.00	5.00	6.00	
Per roll of 100 yards.		8.00	10.00	12.00	
No. B-1122—VERI-STRONG PAPER, Thin.					
Per roll of 10 yards.		\$ 1.25	\$ 1.40	\$ 1.60	\$ 2.20
Per roll of 50 yards.		5.00	6.00	7.00	9.00
Per roll of 100 yards.		10.00	12.00	14.00	18.00
No. B-1123—VERI-STRONG PAPER, Medium.					
Per roll of 10 yards.		\$ 1.80	\$ 2.00	\$ 2.20	\$ 2.60
Per roll of 50 yards.		7.00	8.00	9.00	11.00
Per roll of 100 yards.		14.00	16.00	18.00	22.00





## Puritan Blue Print Papers



Reduced Facsimile of Label

These papers are coated on very tough pure rag stock, and will stand a great amount of rough usage.

	WIDTH, INCHES	24	30	36	42	54
No. B-6152—PURITAN PAPER, Thin.						
Per roll of 10 yards.....		\$ 1.10	\$ 1.20	\$ 1.30	\$ 1.40	\$ 2.00
Per roll of 50 yards.....		3.50	4.00	4.50	5.00	7.50
Per roll of 100 yards.....		7.00	8.00	9.00	10.00	15.00
No. B-6153—PURITAN PAPER, Medium.						
Per roll of 10 yards.....		\$ 1.30	\$ 1.40	\$ 1.50	\$ 1.60	\$ 2.20
Per roll of 50 yards.....		4.50	5.00	5.50	6.00	9.00
Per roll of 100 yards.....		9.00	10.00	11.00	12.00	18.00

## Royal Blue Print Papers



Reduced Facsimile of Label

These papers are designed for general use, where quality is required at a moderate price.

	WIDTH, INCHES	24	30	36	42	54
No. B-7162—ROYAL PAPER, Thin.						
Per roll of 10 yards.....		\$0.60	\$0.70	\$0.80	\$0.90	
Per roll of 50 yards.....		2.50	3.00	3.50	4.00	
Per roll of 100 yards.....		5.00	6.00	7.00	8.00	
No. B-7163—ROYAL PAPER, Medium.						
Per roll of 10 yards.....		\$0.70	\$0.80	\$0.90	\$1.00	\$ 1.60
Per roll of 50 yards.....		3.00	3.50	4.00	4.50	7.50
Per roll of 100 yards.....		6.00	7.00	8.00	9.00	15.00
No. B-9123—HESPERIA PHOTOGRAPHIC BLUE PRINT PAPER.						
Per roll of 10 yards, 25 in. wide.....					\$3.50	

This is an especially high grade paper, suitable for work from glass negatives. Used largely for making prints where fine details are essential, such as furniture, machinery, etc.

Special prices on sheets cut to size.





## Superior Blue Print Papers



Reduced Facsimile of Label

This paper compares favorably with paper offered by many manufacturers as their standard grade.

	WIDTH, INCHES	30	36	42	54
No. B-8172—SUPERIOR PAPER, Thin.					
Per roll of 10 yards.....		\$0.60	\$0.70	\$0.80	
Per roll of 50 yards.....		2.50	3.00	3.50	
Per roll of 100 yards.....		5.00	6.00	7.00	
No. B-8172½—SUPERIOR PAPER, Semi-medium.					
Per roll of 10 yards.....		\$0.65	\$0.75	\$0.85	
Per roll of 50 yards.....		2.75	3.25	3.75	
Per roll of 100 yards.....		5.50	6.50	7.50	
No. B-8173—SUPERIOR PAPER, Medium.					
Per roll of 10 yards.....		\$0.70	\$0.80	\$0.90	\$ 1.60
Per roll of 50 yards.....		3.00	3.50	4.00	7.50
Per roll of 100 yards.....		6.00	7.00	8.00	15.00

## Perfection Blue Print Cloth



Reduced Facsimile of Label

	WIDTH, INCHES	30	36	42	54
No. B-2181—PERFECTION BLUE PRINT CLOTH, Extra thin.					
Per roll of 10 yards.....		\$ 5.40	\$ 6.10	\$ 6.85	
Per roll of 50 yards.....		24.50	27.50	31.00	
No. B-2183—PERFECTION BLUE PRINT CLOTH, Medium.					
Per roll of 10 yards.....		\$ 4.55	\$ 5.00	\$ 6.20	\$ 8.75
Per roll of 50 yards.....		20.50	22.50	28.00	39.50

Blue Print papers and cloths for ocean shipment are packed in air-tight metal cans, insuring absolute protection.

## Erasing Fluids

	PER BOTTLE
No. B-380—WHITE ERASING FLUID. For making alterations on Blue Prints.....	\$0.20
No. B-381—RED ERASING FLUID. For marking or tinting Blue Prints.....	.20
No. B-382—YELLOW ERASING FLUID. For marking or tinting Blue Prints.....	.20
No. B-383—BROWN PRINT ERASING FLUID. For making alterations on Brown Process Prints.....	.20



## Brown Process Papers and Cloths



Reduced Facsimile of Label

For Negative or Brown Prints and Positive Brown Line Prints. Can be used on our continuous electric blue printing machines or in sun frames if desired.

	WIDTH, INCHES	30	36	42	54
No. C-1222—PERFECTION BROWN PROCESS PAPER, Thin.					
Per roll of 10 yards.....		\$ 2.00	\$ 2.30	\$ 2.60	\$ 4.30
Per roll of 50 yards.....		9.50	11.00	12.50	21.00
No. C-1223—PERFECTION BROWN PROCESS PAPER, Medium.					
Per roll of 10 yards.....		\$ 2.00	\$ 2.30	\$ 2.60	\$ 4.30
Per roll of 50 yards.....		9.50	11.00	12.50	21.00

## Brown Process Cloth

	WIDTH, INCHES	30	36	42	54
No. B-2281—PERFECTION BROWN PROCESS CLOTH, Extra Thin.					
Per roll of 10 yards.....		\$ 5.60	\$ 6.70	\$ 7.80	
Per roll of 50 yards.....		27.50	33.00	38.50	
No. B-2283—PERFECTION BROWN PROCESS CLOTH, Medium.					
Per roll of 10 yards.....		\$ 4.85	\$ 5.80	\$ 6.75	\$ 8.90
Per roll of 50 yards.....		23.00	28.50	33.25	44.00

Fixing salts and full directions accompany every roll.

Exposed prints must be very thoroughly washed before applying fixing salts.

## Fixing Salts

Used for intensifying and fixing negative and brown line prints.

No. B-3535—FIXING SALTS.

4 oz. box.....	\$0.15	1 lb. box.....	\$0.40
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## Fixing and Developing Solution for Blue Prints

A 5% solution of Potassium Bichromate or Sodium Bichromate will give a deeper and more lasting color to Blue Prints.

No. B-3513—POTASSIUM BICHROMATE.

Per lb. .... Special

No. B-3514—SODIUM BICHROMATE.

Per lb. .... Special



## Victor Opaque

For Retouching Negatives.

No. B-3504—VICTOR OPAKE.

Per jar, 3/4 oz.....	\$0.25	2 1/2 oz.....	\$0.50
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## Peerless Direct White Print Papers

(Sensitized)

For Producing Blue Lines on a White Background Direct from Tracing  
Without a Negative.

The keeping quality of these Direct White Print Papers is much better than blue print paper, although they print at as fast a speed as X-Electric.



Reduced Facsimile of Label

These papers are made especially for us from pure linen rag stock and produce very deep blue lines on a clear white background. This is the paper in most general use for the Pease Direct Blue Line Prints.

	WIDTH, INCHES	30	36	42	54
No. B-5442—PEERLESS DIRECT WHITE PRINT PAPER, Thin.					
Per roll of 10 yards.....		\$1.10	\$1.20	\$1.30	\$1.70
Per roll of 50 yards.....		3.50	4.00	4.50	6.50
No. B-5443—PEERLESS DIRECT WHITE PRINT PAPER, Medium.					
Per roll of 10 yards.....		\$1.30	\$1.40	\$1.50	\$2.00
Per roll of 50 yards.....		4.50	5.00	5.50	8.00

### Chemicals for Use in Making Pease Direct White Prints

No. B-3525—DEVELOPING CHEMICAL, Dry, per lb. (1 lb. equals 1 gal.)	\$
No. B-3507—CLEARING CHEMICAL, Dry, per lb.	
No. B-3534—ERADICATING SOLUTION, per 2-oz. bottle	.25
No. B-3505—SPECIAL BLUE INK, per ¼-oz. bottle	.25
No. B-4801—HYDROMETER for testing Clearing Solution	4.00
No. B-4802—TEST TUBE for Hydrometer	1.00
No. B-7125—CARBOY ACID PUMP	8.00



## Transparentizing Solutions



### No. B-3522—PERFECTION TRANSPARENTIZING SOLUTION.

For rendering translucent paper negatives and drawings in order to facilitate printing. This is an alcohol mixture, and therefore dries very quickly. A single application renders a negative only slightly translucent, but by repeated applications, up to four or five, any desired degree of translucency may be obtained. Although only partially permanent it gives very satisfactory results on account of its flexibility in tone and speed of drying.

Put up in 1-pint, 1-quart, 1-gallon and 3-gallon cans.

#### Price List

1-pt. ....	\$1.25
1-qt. ....	2.00
1-gal. ....	6.00
3-gal. can, per gal. ....	5.00

Subject to discount.

### No. B-3520—PEERLESS TRANSPARENTIZING SOLUTION.

For transparentizing paper drawings and negatives, and renewing old tracings which have become too soiled to give good prints. Does not injure tracings or drawings in the least, and greatly increases the printing speed; in fact, renders paper of any ordinary thickness sufficiently transparent so that prints may be made at a reasonable speed by electric light. Is permanent and easily applied with sponge or cloth. Does not interfere with making changes or alterations on tracings. Requires about a half-hour to dry sufficiently to use.

Put up in 1-pint, 1-quart, 1-gallon and 3-gallon cans.

#### Price List

1-pt. ....	\$1.00
1-qt. ....	1.50
1-gal. ....	4.00
3-gal. can, per gal. ....	3.50

Subject to discount.



## Air Tight Metal Cans

For Preserving Paper.



Made of galvanized iron with well fitting covers for keeping cut rolls of prepared blue print and brown process papers dry and dark, and also well adapted for the safe keeping of valuable plans and tracings.

Length, inches	31	37	43	55
	No. B-2763	No. B-2764	No. B-2765	No. B-2766
For 50-yd. roll. Each	\$1.75	\$2.00	\$2.25	\$3.00
	No. B-2768	No. B-2769	No. B-2770	No. B-2771
For 100-yd. roll. Each	\$2.00	\$2.25	\$2.50	\$3.25

## Heavy Pasteboard Cans



Made of extra heavy pasteboard, with metal screw cap on each end. They are dust-proof, moisture-proof, light-proof; very durable, and excellent for filing drawings, tracings, etc.

### Price List

	EACH
No. B-2776—PASTEBOARD CAN, 3½ in. inside diameter, 32 in. long	\$0.90
No. B-2777—PASTEBOARD CAN, 3½ in. inside diameter, 37 in. long	1.10
No. B-2778—PASTEBOARD CAN, 3½ in. inside diameter, 43 in. long	1.30

## Spring Clips



	PER DOZ.
No. B-2780—SPRING CLIPS for clamping prints while drying.	\$0.25



## Sure Shot Blue Print Binder



This machine, which is operated by raising the knob at the top and driving by blow or pressure of the hand, holds 100 heavy wire staples at a charge, and will bind to one-quarter inch any kind of paper or fabric.

	EACH
No. B-1306—SURE SHOT BINDER.....	\$4.00

## Staples



Packed 5,000 in a box, with directions for use printed on the label.

	BOX
No. B-1307—STAPLES. No. X heavy wire, 1/4-inch leg.....	\$1.25
No. B-1308—STAPLES. No. XX heavy wire, 5/16-inch leg....	1.25

## Hand Shears



These Shears are especially adapted to trimming blue prints, being very light weight, with long, thin blades and of an extra selected guaranteed quality. They will hold a smooth, keen cutting edge and permit the shear to be "run" across the paper without catching or choking.

Nickeled blades and japanned handles.

	PAIR
No. B-7721—HAND SHEARS, Right Hand, 14 inches long....	\$3.50
No. B-7722—HAND SHEARS, Left Hand, 14 inches long....	4.00



## COMMERCIAL BLUE PRINTING DEPARTMENT

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**T**HIS Department is completely equipped with the latest types of our machines, and is always prepared to furnish promptly prints in any quantities desired.

Anyone who has ever tried to use a blue print which is distorted and wrinkled by having been hung on a stick or line to dry will appreciate the perfectly flat, smooth prints made by the Pease Peerless Process by which we produce Blue Prints, either paper or cloth; Pease Direct Blue Line Prints; Negative and Brown Line Prints. These prints are of any length in one piece, and any width up to fifty-four inches. Tracings left in our care over night are stored in a fireproof vault.

Special attention is called to our Map Mounting Department and our line of Map Cases, as described in the following pages.

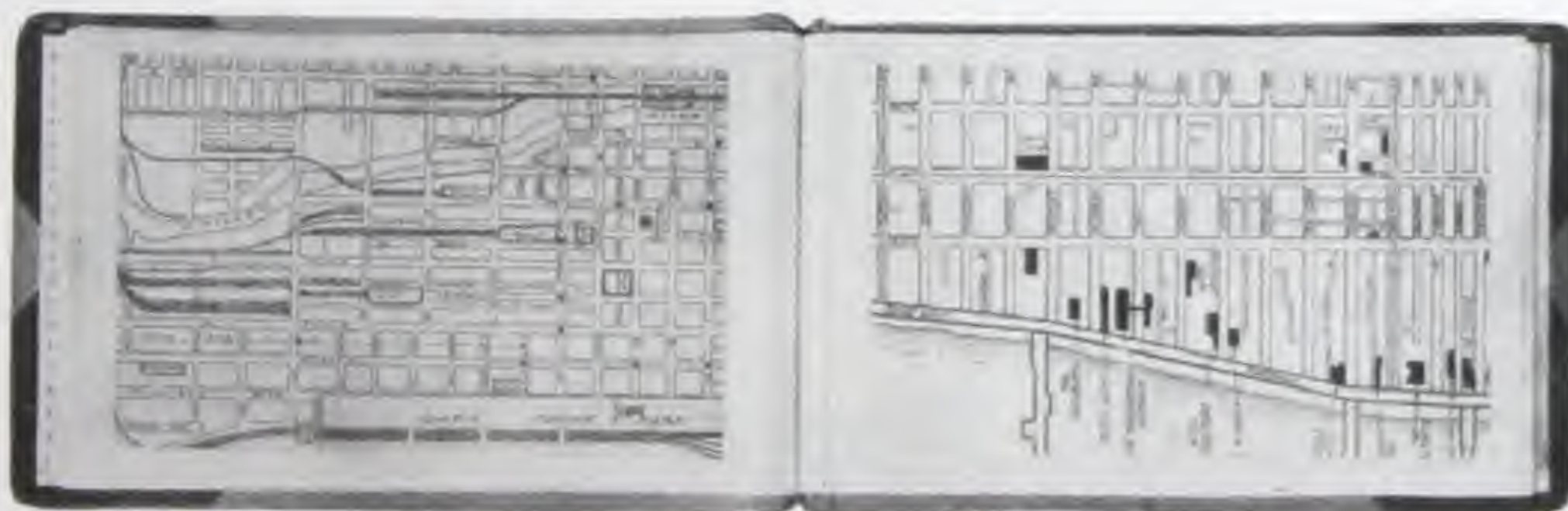


## Map and Chart Mounting

For convenience and durability a cloth mounted print has many advantages. In connection with our Commercial Printing Department we maintain an extensive Mounting Department, where we are prepared to mount anything that requires a cloth backing, such as maps, charts, posters, lithographs, drawing papers in rolls or sheets, etc. We do mounting in any form—on cloth with plain rollers; with spring rollers, either with or without cases; on stretchers; on cardboard or compo-board; varnished or water-colored, or in any other style desired.

Especially fine for maps, charts, profiles, and any kind of print requiring mounting is the **Pease Direct Blue Line Process**. These prints are made without a negative and are absolutely permanent in color, neither lines nor background being affected by the strongest sunlight, while with our Eradicating Solution and Special Blue Ink, alterations and additions may be made without defacing the print. They are made on high-grade parchment paper, especially adapted for water-coloring, without any of the distorted and buckled appearance common to prints that have been so treated. We make these prints up to fifty-four inches wide, and any length in one piece. Sectional maps can be joined invisibly in mounting.

We also furnish loose-leaf binders, and mount prints back to back with a hinged end for use in same.



Write us for suggestions and estimates on special styles of mounting and binding.



## Map and Chart Mounting—Continued

### Map Mouldings

This term signifies a moulding for both top and bottom of map, together with the necessary rings for hanging and tapes for tying when rolled up.

	Nos.	B-6105	B-6106	B-6107	B-6108	B-6109	B-6110	B-6111
Width .....		36-in.	42-in.	46-in.	54-in.	62-in.	68-in.	78-in.
Each .....		\$0.45	\$0.55	\$0.60	\$0.70	\$0.85	\$1.25	\$1.60

### Spring Roller and Board

(Also called Portable Board Mounting)

This is a Hartshorn Spring Roller on a portable board, with stick for bottom of map, which makes a very convenient mounting, doing away with the rolling up of the map by hand, but it is without the protection afforded by the Map Cases (see illustrations on following pages).

	Nos.	B-6112	B-6113	B-6114	B-6115	B-6116	B-6117
Width .....		42-in.	48-in.	54-in.	68-in.	78-in.	88-in.
Each .....		\$2.00	\$2.50	\$3.00	\$4.75	\$6.35	\$7.50

### Dust-Proof Portable Board



No. B-6118

The Dust-Proof Portable Board Mounting is the same as the Spring Roller and Board, excepting that a strip of black enameled cloth is attached to the map, which completely covers and protects it when rolled up.

	Nos.	B-6118	B-6119	B-6120	B-6121	B-6122	B-6123
Width .....		42-in.	48-in.	54-in.	68-in.	78-in.	88-in.
Each .....		\$2.35	\$2.75	\$3.25	\$5.25	\$6.85	\$8.25



## Map and Chart Mounting—Continued

### Veneer Map Case



THE PATENT VENEER CASE is by far the best single map case made. It is made of four-ply birch veneer, finished in golden oak or mahogany, exceedingly strong, but very light and easily moved. Its rounded form, without sharp angles, and its beautiful finish make it an ornament to any office. Furnished with hooks and eyes for hanging.

These cases will carry maps two inches narrower than size of case.

Complete with Hartshorn Spring Roller and Bottom Stick.

	Nos. B-6124	B-6125	B-6126	B-6127	B-6128
Width .....	36-in.	42-in.	54-in.	68-in.	78-in.
Each .....	\$3.20	\$3.50	\$4.00	\$6.75	\$8.00

### Steel Map Case



Is made of heavy steel, cylindrical in form, and simple in construction. End caps are flat, having no openings through which spring roller pins protrude. One end is removable so that map may easily be taken out if necessary; in replacing, an eighth turn locks it securely. Is durable, light weight, compact, measuring only two and one-quarter inches in diameter, except the 68-inch and 78-inch cases, which are a trifle larger. Is dust-proof and very neat in appearance, being japanned a dark olive green.

STEEL MAP CASE. Complete with Spring Roller, Bottom Stick and Pull.

	Nos. B-6129	B-6130	B-6131	B-6132	B-6133	B-6134
Width .....	36-in.	42-in.	54-in.	66-in.	68-in.	78-in.
Each .....	\$3.25	\$3.50	\$4.00	\$5.50	\$7.00	\$8.00



## Map and Chart Mounting—Continued

### Peerless Rotary Map Case



No. B-6135

(The case here shown holds eight maps.)

The latest improvement in map cases and the most practical arrangement ever devised. It can be made to hold any number of maps from two to twelve. The maps are mounted on a revolving cylinder, affording convenience and economy of wall space. Any map can be brought instantly to view. A case sufficiently large to contain eight maps requires less than nine inches of wall space. A marvel of compactness.

In this case each map has an individual oil cloth cover protecting it from dust, a feature of first importance.

Another most desirable feature of this Peerless Rotary Case is that any map (by the mere touch of a lever) may be removed with its spring roller and dust protector, without disturbing the rest of the maps, and used in independent brackets.

One more distinct advantage is that *all maps are drawn from one height*. Before a map can be displayed it is brought to the bottom level by revolving the cylinder; a straight downward pull then brings the map to view.

The frame is made of oak solidly screwed and glued together and nicely finished. The brackets and axles supporting the map holder are made of steel. The discs are heavy four ply veneer with edges bound in brass. The cylinder rotates smoothly and noiselessly and is held in any desired position by a spring brake.

THE PEERLESS ROTARY is the most convenient, practical and satisfactory case for holding a collection of maps.

Price, complete with Hartshorn Spring Rollers, Bottom Sticks, Pulls, and Individual Dust-proof Coverings:

	No. B-6135	No. B-6136	No. B-6137	No. B-6138
Width.....	42-IN.	54-IN.	66-IN.	78-IN.
To hold 8 maps.....	\$23.00	\$27.50	\$40.00	\$56.00



# Map and Chart Mounting—Continued

## Roller Front Map Case



No. B-6139

Roller Front Case open with one map partly drawn down.

THE ROLLER FRONT CASE has a dust-proof curtain front similar to those used on roll top office desks. The curtain operates on a spring roller and is opened by simply pushing it upward. This case occupies less wall space, as there is no hinged door to drop down. Being easy to open and close it is more apt to be kept closed when not in use, keeping the maps clean. It is made of oak, well constructed and finely finished.



No. B-6139

Roller Front Case Closed.

Price complete with Hartshorn Spring Rollers, Bottom Rollers, Pulls, etc.:

	No. B-6139	No. B-6140	No. B-6141	No. B-6142
Width.....	42-IN.	54-IN.	66-IN.	78-IN.
To hold 4 maps.....	\$13.50	\$17.00	\$30.00	\$36.00
	No. B-6143	No. B-6144	No. B-6145	No. B-6146
To hold 8 maps.....	\$16.00	\$21.50	\$40.00	\$55.00



## Map and Chart Mounting—Continued

### Spring Roller Map Case



Made of oak. Fine varnish finish. Dust-proof. Furnished with lock and key. Made in various sizes to hold any number of maps, from four to eight.

SPRING ROLLER MAP CASE. Price complete with Spring Rollers, Bottom Sticks and Pulls.

Width	42-in.	54-in.	78-in.
To hold 4 Maps	No. B-6147 \$9.50	No. B-6148 \$13.00	
To hold 6 Maps	No. B-6149 \$11.50	No. B-6150 \$15.00	No. B-6151 \$24.00
To hold 8 Maps	No. B-6152M \$13.50	No. B-6153M \$17.50	No. B-6154 \$36.00



In all our Spring Roller Cases we use *Hartshorn's Best Map Rollers*. They cost us more than other kinds, but they never get out of order and they last a lifetime.





## All Steel Baling Presses



No. B-7216 (Open top)



No. B-7217 (Open top)



No. B-7218 (Open top)

Burning waste paper is like burning paper dollars. The practical business man bales his waste and sells it readily at a handsome profit. The daily accumulation in any store or office is from 25 to 250 pounds. This waste paper when baled brings from \$6.00 to \$75.00 per ton.

For prices and descriptions see page 72.



## All-Steel Baling Presses

**Construction**—Simple—strong—all steel—absolutely fireproof. No wood to rot, split, warp or burn. Nothing to get out of order—will last a lifetime. Body of press is made of sheets of blue annealed steel, reinforced with bars of angle steel. All castings and working parts are of crucible steel.

All sizes are constructed so that entire front opens for easy removal of bale.

Hand-wheel and lever afford easiest, simplest and quickest method of applying tremendous pressure.

**Operation**—As waste accumulates it is dumped into baler, and compressed by a turn of the hand-wheel and pressure of lever. When bale is complete wires are fastened and bale is then ready for removal from press. By using the baler as a *storage place* for the waste it eliminates danger of fire, which so frequently starts in piles of loose waste.

**Guarantee**—All-Steel Balers are guaranteed for one year from date of purchase. Any part that proves defective within this period will be replaced *free of cost*, f. o. b. factory.

EACH

No. B-7216—ALL-STEEL BALING PRESS.....\$45.00

Size of press in inches, 17x19½x35.

Size of bale in inches, 15x17x30.

Weight of bale in pounds, 100 to 125.

Weight of press in pounds, 250.

No. B-7217—ALL-STEEL BALING PRESS.....\$55.00

Size of press in inches, 19x20½x38.

Size of bale in inches, 17x18x35.

Weight of bale in pounds, 125 to 150.

Weight of press in pounds, 275.

No. B-7218—ALL-STEEL BALING PRESS.....\$69.00

Size of press in inches, 22x23x45.

Size of bale in inches, 18x20x40.

Weight of bale in pounds, 150 to 225.

Weight of press in pounds, 335.

No. B-9619—STEEL BALING WIRE. Any quantity.

Prices on application. 8 ft. wire recommended.



DRAFTING ROOM FURNITURE  
DRAWING MATERIALS  
AND SUPPLIES



SURVEYING  
INSTRUMENTS



## Drawing Papers in Sheets

**Whatman's Papers** are made with three different surfaces.

H. P. signifies "Hot Pressed," smooth surface, mostly used for pen and ink and fine line drawing.

C. P. signifies "Cold Pressed," fine grained surface, used for general drawing and water color painting.

R. signifies "Rough," coarsely grained surface, used for very bold drawing and sketching.

In ordering please state size and surface wanted—H. P., C. P., or R.

No. B-01—WHATMAN'S DRAWING PAPER. With H. P. or C. P. surface.

	INCHES	QUIRE	SHEET
Cap .....	13x17	\$ 0.80	\$0.05
Demy .....	15x20	1.25	.08
Medium .....	17x22	1.80	.10
Royal .....	19x24	2.40	.12
Super Royal .....	19x27	2.75	.15
Imperial .....	22x30	4.00	.20
Double Elephant .....	27x40	7.50	.35
Antiquarian .....	31x53	28.60	1.50

No. B-02—WHATMAN'S DRAWING PAPER. R. surface.

	INCHES	QUIRE	SHEET
Royal .....	19x24	\$2.40	\$0.12
Imperial .....	22x30	4.00	.15
Double Elephant .....	27x40	7.50	.35

No. B-03—WHATMAN'S DRAWING PAPER. Extra heavy, H. P., C. P. or R. surface.

	INCHES	QUIRE	SHEET
Imperial .....	22x30	\$ 7.85	\$0.40
Double Elephant .....	27x40	11.80	.60

No. B-010—AQUARIUS DRAWING PAPER, in sheets. Highest grade. Can be folded without breaking. Hard, smooth surface.

	INCHES	QUIRE	SHEET
Royal .....	19x24	\$2.00	\$0.10
Imperial .....	22x30	3.00	.15
Double Elephant .....	27x40	4.50	.30



## Drawing Papers in Sheets—Continued

No. B-012—ELECTRA DRAWING PAPER, in sheets. Eggshell surface. Made of best linen stock. Particularly suited for perspective drawing.

	INCHES	QUIRE	SHEET
Royal .....	19x24	\$3.00	\$0.15
Imperial .....	22x30	4.50	.25
Double Elephant .....	27x40	6.50	.35

Same paper in rolls, No. B-072.

No. B-013—ALCYONE DRAWING PAPER, in sheets. A strong, high grade paper with uniform surface and splendid erasing qualities.

	INCHES	QUIRE	SHEET
Cap .....	14x17	\$0.85	\$0.05
Demy .....	15x20	1.10	.07
Medium .....	17x22	1.35	.08
Royal .....	19x24	1.65	.10
Imperial .....	22x30	2.70	.15
Double Elephant .....	27x40	4.70	.25

The thickness is in proportion to the size, the smallest sheet being thinnest.

No. B-014—ADARA WHITE DRAWING PAPER. A good quality paper, with slightly grained surface. Takes ink and color well, and especially adapted for school use.

	INCHES	QUIRE
Cap .....	14x17	\$0.30
Demy .....	15x20	.55
Medium .....	17x22	.60
Royal .....	19x24	.75
Imperial .....	22x30	1.05
Double Elephant .....	27x40	2.15

No. B-016—STRATHMORE WHITE DRAWING PAPER. Medium surface. For pen and ink sketching and water color work.

	100 SHEETS	QUIRE
14½x23 in. ....	\$3.75	\$1.05
23x29 in. ....	7.50	2.10

Our complete sample book of Papers sent on request.



## Drawing Papers in Sheets—Continued

No. B-025—NEPTUNE CREAM DRAWING PAPER, in sheets. For preliminary drawing. Stands erasing perfectly and can be folded without breaking.

	INCHES	QUIRE
Royal .....	19x24	\$1.20
Imperial .....	22x30	1.75
Special .....	24x36	2.25
Double Elephant .....	27x40	2.75

Same paper in rolls, No. B-053.

## Drawing Boards

No. B-018—STRATHMORE DRAWING BOARDS (Smooth).

No. B-019—STRATHMORE DRAWING BOARDS (Medium).

Made in two surfaces: Smooth for pen and ink drawing; Medium for pencil and water color.

	14½x23		23x29	
	PER 100	PER DOZ.	PER 100	PER DOZ.
A—Smooth; A—Med.; 2 ply .....	\$ 7.50	\$1.00	\$15.00	\$2.00
B—Smooth; B—Med.; 3 ply .....	11.25	1.50	22.50	3.00
C—Smooth; C—Med.; 4 ply .....	15.00	2.25	30.00	4.50
D—Smooth; D—Med.; 5 ply .....	18.75	2.50	37.50	5.00

## Illustration Boards

No. B-020—STRATHMORE ILLUSTRATION BOARD.

	PER DOZ.
22x28 inches, heavy .....	\$3.60
30x40 inches, heavy .....	6.00
22x30 inches, light .....	2.40

## Bristol Boards

No. B-034—PEERLESS PATENT OFFICE BRISTOL BOARD.

	GROSS	DOZ.
10x15 in., plain, 2 ply .....	\$6.00	\$0.60
10x15 in., plain, 3 ply .....	8.50	.85
10x15 in., printed, 3 ply .....	10.00	1.00

No. B-035—STRATHMORE PATENT OFFICE BRISTOL BOARD.

	DOZ.
10x15 in., printed, 2 ply .....	\$0.70
10x15 in., printed, 3 ply .....	1.00

No. B-036—PERGASUS BRISTOL BOARD, for pen and ink drawing.

	2-PLY	3-PLY	4-PLY	6-PLY
22x28 in., per doz. ....	\$1.50	\$1.75	\$2.00	\$2.25

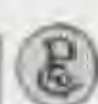
No. B-038—REYNOLDS BRISTOL BOARD.

		2-PLY	3-PLY	4-PLY
Cap .....	12½x15¼ in.	Per doz. \$1.00	\$1.50	\$2.00
Demy .....	14½x18¼ in.	Per doz. 1.60	2.35	3.10
Medium .....	16½x20¾ in.	Per doz. 2.10	3.15	4.30
Royal .....	18½x22¾ in.	Per doz. 2.75	4.00	5.35
Imperial .....	21½x28¾ in.	Per doz. ....	7.75	10.25

No. B-039—REYNOLDS PATENT OFFICE BRISTOL BOARD.

		2-PLY	3-PLY
10x15 in. Plain. Per doz. ....		\$1.00	\$1.50
10x15 in. Printed. Per doz. ....		1.35	1.75





## Detail Papers in Rolls



(Reduced Facsimile of Labels)

No. B-052A—TAURUS DETAIL PAPER, of carefully selected stock. "G" surface, slightly grained. Thin.

In rolls of 100 to 120 lbs.	Per lb.	\$0.17
Width, inches	36	42 48
Per roll of 100 yds.	\$5.25	\$6.00 \$6.75
Per roll of 50 yds.	2.90	3.25 3.60

No. B-052B—TAURUS DETAIL PAPER. "G" surface. Medium.

In rolls of 100 to 120 lbs.	Per lb.	\$0.17
Width, inches	36	42 48
Per roll of 100 yds.	\$6.40	\$7.40 \$8.40
Per roll of 50 yds.	3.50	4.00 4.50

No. B-052C—TAURUS DETAIL PAPER. "G" surface. Thick.

In rolls of 100 to 120 lbs.	Per lb.	\$0.17
Width, inches	36	42 48
Per roll of 100 yds.	\$8.25	\$9.50 \$10.75
Per roll of 50 yds.	4.50	5.25 6.00

No. B-054A—TAURUS DETAIL PAPER. "R" surface, slightly ribbed. Thin.

In rolls of 100 to 120 lbs.	Per lb.	\$0.17
Width, inches	36	42 48
Per roll of 100 yds.	\$5.25	\$6.00 \$6.75
Per roll of 50 yds.	2.90	3.25 3.60

No. B-054B—TAURUS DETAIL PAPER. "R" surface. Medium.

In rolls of 100 to 120 lbs.	Per lb.	\$0.17
Width, inches	36	42 48
Per roll of 100 yds.	\$6.40	\$7.40 \$8.40
Per roll of 50 yds.	3.50	4.00 4.50

No. B-054C—TAURUS DETAIL PAPER. "R" surface. Thick.

In rolls of 100 to 120 lbs.	Per lb.	\$0.17
Width, inches	36	42 48
Per roll of 100 yds.	\$8.25	\$9.50 \$10.75
Per roll of 50 yds.	4.50	5.25 6.00

Our complete sample book of Papers sent on request.



### Detail Papers in Rolls—Continued

No. B-056A—VEGA BUFF DETAIL PAPER with slightly grained surface. Thin.

In rolls of 100 to 120 lbs.	per lb. \$0.17		
Width, inches	36	42	48
Per roll of 100 yards	\$5.25	\$6.00	\$6.75
Per roll of 50 yards	2.90	3.25	3.60

No. B-056B—VEGA BUFF DETAIL PAPER. Medium.

In rolls of 100 to 120 lbs.	per lb. \$0.17		
Width, inches	36	42	48
Per roll of 100 yards	\$6.40	\$7.40	\$8.40
Per roll of 50 yards	3.50	4.00	4.50

No. B-056C—VEGA BUFF DETAIL PAPER. Thick.

In rolls of 100 to 120 lbs.	per lb. \$0.17		
Width, inches	36	42	48
Per roll of 100 yards	\$8.25	\$9.50	\$10.75
Per roll of 50 yards	4.50	5.25	6.00

### Drawing Papers in Rolls



(Reduced Facsimile of Labels)

No. B-060—ALTAIR WHITE DRAWING PAPER. A low priced drawing paper, but of excellent quality. Takes ink and color well.

In rolls of about 40 lbs.	per lb. \$0.24		
	50 YDS.	25 YDS.	10 YDS.
36 in. wide	\$5.50	\$3.00	\$1.35

No. B-062—SATURN WHITE DRAWING PAPER. A strong white paper of exceptional quality. Uniform surface, with excellent erasing qualities.

In rolls of about 40 lbs.	per lb. \$0.45		
Width, inches	36	42	62
Per roll of 25 yards	\$4.80	\$5.45	\$8.10
Per roll of 10 yards	2.10	2.40	3.60
Per yard	.25	.30	.40



## Drawing Papers in Rolls—Continued



(Reduced Facsimile of Labels)

No. B-063—NEPTUNE CREAM DRAWING PAPER. An excellent high grade paper, with slightly grained surface; durable, and stands erasure.

In rolls of about 50 lbs.	Per lb. \$0.30			
Width, inches	30	36	42	62
Per roll of 50 yards	\$5.50	\$6.25	\$6.75	\$12.00
Per roll of 25 yards	3.00	3.35	3.75	6.25
Per roll of 10 yards	1.40	1.50	1.65	2.75

No. B-063G—MARS GREEN DRAWING PAPER. Same high grade paper as our No. B-063, but of light green color, which is more restful to the eyes than white or cream papers.

In rolls of about 50 lbs.	Per lb. \$0.32			
Width, inches	30	36	42	62
Per roll of 50 yards	\$5.50	\$6.25	\$6.75	\$12.00
Per roll of 25 yards	3.00	3.35	3.75	6.25
Per roll of 10 yards	1.40	1.50	1.60	2.75

No. B-065—HYDRUS CREAM COLOR DRAWING PAPER. Is the finest paper in the market for preliminary drawing. Stands erasing perfectly, and can be folded without breaking. Same paper mounted on muslin, No. B-081.

In rolls of about 50 lbs.	Per lb. \$0.35			
Width, inches	30	36	42	62
Per roll of 50 yards	\$6.25	\$6.85	\$7.50	\$13.00
Per roll of 25 yards	3.50	3.75	4.00	7.00
Per roll of 10 yards	1.65	1.75	1.85	3.00

No. B-072—ELECTRA EGGSHELL DRAWING PAPER. Made from best linen stock. Pebbled surface. Same paper mounted on muslin, No. B-086.

In rolls of about 40 lbs.	Per lb. \$0.50	
Width, inches	36	42
Per roll of 25 yards	\$8.75	\$10.25
Per roll of 10 yards	3.75	4.50
Per yard	.40	.50



## Drawing Papers in Rolls—Continued

No. B-074—ELECTRA EGGSHELL DRAWING PAPER. Smooth surface. Same weight and quality as No. B-072.

In rolls of about 40 lbs.	Per lb.	\$0.50	
25 YDS.	10 YDS.	YARD	
42 inches wide.	\$10.25	\$4.50	\$0.50

No. B-076—ELECTRA EGGSHELL DRAWING PAPER. Extra heavy, pebbled surface.

In rolls of about 40 lbs.....	Per lb.	\$0.50	
	25 YDS.	10 YDS.	YARD
58 inches wide.....	\$15.00	\$6.50	\$0.75

## Mounted Drawing Papers in Rolls



(Reduced Facsimile of Labels)

No. B-081—HYDRUS CREAM DRAWING PAPER. Mounted. Same paper as No. B-065.

	10 YDS.	YARD
36 inches wide.....	\$6.50	\$0.75
42 inches wide.....	9.00	1.00

No. B-083—ELECTRA EGGSHELL DRAWING PAPER. Pebbled. Mounted. Same paper as No. B-072.

	10 YDS.	YARD
36 inches wide.....	\$ 8.40	\$0.95
42 inches wide.....	10.50	1.20

No. B-084—ELECTRA EGGSHELL DRAWING PAPER. Smooth. Mounted. Same paper as No. B-074.

	10 YDS.	YARD
42 inches wide.....	\$10.50	\$1.20

Our complete sample book of Papers sent on request.



## Mounted Drawing Papers in Sheets

### Mounted on Muslin, One Side Only

Unless otherwise specified the sheets will be furnished with muslin trimmed on all edges. Large sheets for city, county or state maps mounted to order at short notice.

No. B-085—WHATMAN'S DRAWING PAPER. Mounted. When ordering specify whether H. P. or C. P. surface is desired.

	INCHES	SHEET
Royal .....	19x24	\$0.40
Imperial .....	22x30	.50
Double Elephant .....	27x40	1.00
Antiquarian .....	31x53	2.00

No. B-086—ELECTRA EGGSHELL DRAWING PAPER. Pebbled. Mounted. Same paper as No. B-072.

	INCHES	SHEET
Royal .....	19x24	\$0.40
Imperial .....	22x30	.50
Double Elephant .....	27x40	.80
Antiquarian .....	31x53	1.25

### Double-Mounted Drawing Papers

No. B-087—WHATMAN'S DRAWING PAPER. Double mounted. When ordering specify whether H. P. or C. P. surface is desired. Specially adapted for atlas or map work, having muslin in middle, with paper on both sides.

	INCHES	SHEET
Imperial .....	22x30	\$0.90
Double Elephant .....	27x40	1.75

No. B-088—ELECTRA EGGSHELL DRAWING PAPER. Pebbled. Double mounted. Same as No. B-072.

	INCHES	SHEET
Imperial .....	22x30	\$0.85
Double Elephant .....	27x40	1.50

### Paper Cloth

No. B-089—SAMPSON PAPER CLOTH for map and atlas work. A strong, white, indestructible fabric.

38 in. wide..... Per yd. \$0.55





## Tracing Cloths in Rolls

### Pease "Gold Label" Tracing Cloth



Pease Gold Label Tracing Cloth is entirely an American product, uniform in texture and transparency, and has our unqualified guarantee. It will compare favorably with any other cloth of domestic or foreign make, and its reasonable price recommends it for general use.

No. C-091—PEASE GOLD LABEL TRACING CLOTH, in rolls of 24 yards.

	ROLL	YARD
26 inches wide.....	\$ 9.35	\$0.45
30 inches wide.....	10.00	.50
36 inches wide.....	11.50	.55
42 inches wide.....	14.40	.65

### Pease "Gold Label" Pencil Cloth

A white cloth made exclusively for pencil work.

No. B-091A—GOLD LABEL PENCIL CLOTH, in rolls of 24 yards.

	ROLL	YARD
30 inches wide.....	\$ 8.25	\$0.40
36 inches wide.....	9.50	.50
42 inches wide.....	12.25	.65

### National Tracing Cloth



No. C-090—NATIONAL TRACING CLOTH, in rolls of 24 yards.

	ROLL	YARD
26 inches wide.....	\$10.00	\$0.50
30 inches wide.....	10.75	.55
36 inches wide.....	12.25	.65
42 inches wide.....	15.75	.80

### Imperial Tracing Cloth



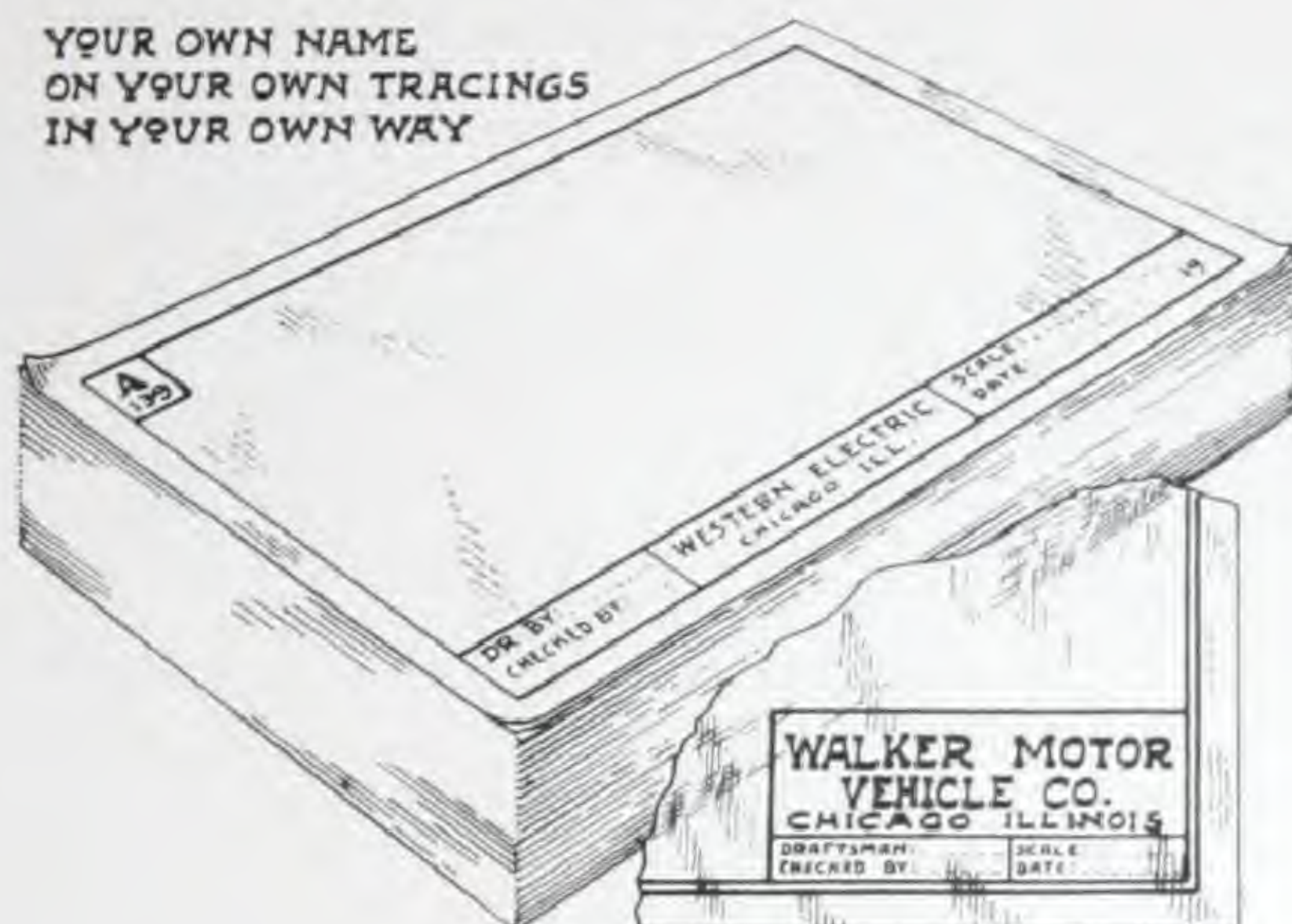
No. B-092—IMPERIAL TRACING CLOTH, in rolls of 24 yards.

	ROLL	YARD
24 inches wide.....	\$10.00	\$0.50
30 inches wide.....	10.75	.55
36 inches wide.....	12.25	.65
41 inches wide.....	15.75	.80
48 inches wide.....	21.00	1.05
54 inches wide.....	22.00	1.10



## Tracing Cloth Printed to Order with Titles and Borders

YOUR OWN NAME  
ON YOUR OWN TRACINGS  
IN YOUR OWN WAY



We make a specialty of printing borders and titles on tracing cloth. All work printed with special ink particularly adapted for tracing cloth. Tracings can be cleaned with gasoline without injuring the ink.

A great saving can be made by having your cloth cut to size and printed. Let us figure on your requirements.



## Opaque Stamp Pad Ink and Pads

With this ink, titles and cards can be applied to Tracing Cloth from rubber stamps, the lettering showing clearly on Blue Prints made from the tracing.

### No. B-098—PEERLESS OPAQUE STAMP PAD INK.

2 ounce bottles. Each.....	\$0.75
4 ounce bottles. Each.....	1.40

### No. B-098A—OPAQUE INK STAMP PADS.

2x3 inches. Per pair.....	\$0.35
3x4 inches. Per pair.....	.40
4x7 inches. Per pair.....	.45





No. B-099

## Tracing Cloth Powder

No. B-099—TRACING CLOTH POWDER, in  
Tin Shakers. Each.....\$0.15

To be rubbed evenly over the cloth with a piece  
of flannel and then removed, in order to make the  
cloth take ink more readily.

## Ink for Printing on Tracing Cloth

No. B-0100—PEERLESS TRACING CLOTH INK. This ink is  
made especially for this purpose, being exceedingly  
opaque, and to withstand when dry the action of gasoline.  
Tracing Cloth printed with this ink can be cleaned with  
gasoline without erasing the lines, and the ink will not  
flake off.

	EACH
4 ounce tubes.....	\$0.85
1 pound cans.....	2.75



## Tracing Papers in Rolls

Made in U. S. A.



(Reduced Facsimile of Labels)

No. B-0102—DIANA TRACING PAPER. Very thin and transparent.

42 inches wide, per roll of 20 yards.....\$1.50

No. B-0105—CANOPUS TRACING PAPER. Medium weight.

42 inches wide, per roll of 20 yards.....\$1.50

No. B-0107X—URANUS TRACING PAPER. Thin and very transparent. A low price paper for general use.

42 inches wide, in rolls of 50 yards.....\$2.50

57 inches wide, in rolls of 50 yards..... 3.75

No. B-0110—RIGEL BOND TRACING PAPER. A high grade white bond paper of great strength. Will stand any amount of handling and produce first class blue prints.

30 inches wide, in rolls of 50 yards.....\$2.40

36 inches wide, in rolls of 50 yards..... 2.75

42 inches wide, in rolls of 50 yards..... 3.15

No. B-0111X—CETUS TRACING PAPER. A heavy weight paper of great transparency and strength.

36 inches wide, in rolls of 50 yards.....\$3.00

58 inches wide, in rolls of 50 yards..... 4.50

No. B-0114—ARGO TRACING PAPER. A medium weight paper of good transparency and weight.

42 inches wide, in rolls of 20 yards.....\$1.50

No. B-0115X—METEOR TRACING PAPER. A medium weight paper, slightly glazed and with hard surface.

42 inches wide, in rolls of 20 yards.....\$2.00



## Tracing Papers in Rolls—Continued

Made in U. S. A.



(Reduced Facsimile of Labels)

- No. B-0119X—APOLLO TRACING PAPER. A light weight, very transparent paper.  
 42 inches wide, per roll of 20 yards. . . . . \$1.40
- No. B-0128—JUNO TRACING PAPER. A very transparent paper with hard, glassy surface.  
 42 inches wide, per roll of 20 yards. . . . . \$1.50
- No. B-0130—NORMA TRACING PAPER. A prepared bond paper of good weight and transparency. Lies flat.  
 36 inches wide, per roll of 20 yards. . . . . \$3.50  
 42 inches wide, per roll of 20 yards. . . . . 4.00
- No. B-0131—REGULUS TRACING PAPER. A vellum paper, strong and transparent. Each roll packed in pasteboard tube.  
 36 inches wide, per roll of 20 yards. . . . . \$4.50  
 42 inches wide, per roll of 20 yards. . . . . 5.00
- No. B-0132—VIRGO TRACING PAPER. A prepared bond paper of great strength, white in color and very transparent. Will lie flat and take color without buckling.  
 36 inches wide, per roll of 20 yards. . . . . \$3.75  
 42 inches wide, per roll of 20 yards. . . . . 4.50
- No. B-0134—ANTILIA TRACING PAPER. A natural sketching paper.  
 57 inches wide, per roll of 44 yards. . . . . \$3.75



### Tracing Papers in Sheets

No. B-0135—APOLLO TRACING PAPER, in sheets. Very thin and transparent. Suitable for tracing from Blue Prints.			
14 x 21 inches; per doz. sheets.....			\$0.50
21 x 28 inches; per doz. sheets.....			1.00
28 x 42 inches; per doz. sheets.....			2.00
No. B-0137—CRANE'S BOND PAPER.			
	THIN	MEDIUM	THICK
	No. 16	No. 18	No. 21
19 x 24 inches; per quire.....	\$0.90	\$1.10	\$1.30
19 x 30 inches; per quire.....	1.20	1.40	1.60
No. B-0138—TYPEWRITER BOND PAPER. Especially intended for typewritten specification work. Very strong and transparent.			
8½ x 11 inches; per 500 sheets.....			\$1.00
8½ x 13 inches; per 500 sheets.....			1.25
Other sizes can be furnished.			
No. B-0139—REGULUS VELLUM PAPER. Very fine for typewriter work.			
8½ x 11 inches; per 100 sheets.....			\$2.00
8½ x 13 inches; per 100 sheets.....			2.50
No. B-0140—PEERLESS BOND PAPER. Particularly adapted for typewriter work from which Direct Blue Line Prints are required.			
8½ x 11 inches; per 500 sheets.....			\$3.00
8½ x 13 inches; per 500 sheets.....			3.50

### Adhesive Binding Tapes



No. B-0144



No. B-0146

**CROWELL'S ADHESIVE TAPE** consists of a strip of good quality cloth, coated on one side with an adhesive glue compound. It is unequalled for stretching drawing paper, holding tracing sheets, and for binding and mending drawings, blue prints, etc.

Put up in a box, so constructed as to preserve it from atmospheric and other deteriorating effects.

No. B-0144—CROWELL'S ADHESIVE TAPE, White, ¼-in. wide; per box of 50 ft.....\$0.35

No. B-0145—HALL'S ADHESIVE TAPE, in 10-yd. rolls; made in White, Blue, Red or Black; per roll......10

### French Transparent Gummed Paper

Will not blur or blot when written over and is perfectly transparent. Very useful for repairing drawings, blue prints, etc.

No. B-0146—FRENCH TRANSPARENT TAPE, on reels containing 6 yds. Per doz.....\$0.50



## Peerless Profile Papers and Cloths

Our profile and cross section papers are printed from engraved rollers on a superior quality of paper made expressly for the purpose, and are unexcelled for distinctness, accuracy and uniformity.

Printed in orange and green, except as specified.



Plate A. 4 x 20 to 1 inch.

	ROLL	YARD
No. B-0150—Green, on drawing paper, engraving 20 in. wide, 50-yd. rolls...	\$10.00	\$0.24
No. B-0150—Orange, on drawing paper, engraving 20 in. wide, 50-yd. rolls...	10.00	.24
No. B-0151—Green, on drawing paper, engraving 10 in. wide, 50-yd. rolls...	6.25	.15
No. B-0151—Orange, on drawing paper, engraving 10 in. wide, 50-yd. rolls...	6.25	.15
No. B-0152—Green, mounted on muslin, engraving 20 in. wide, 20-yd. rolls...	10.00	.60
No. B-0152—Orange, mounted on muslin, engraving 20 in. wide, 20-yd. rolls...	10.00	.60
No. B-0153—Green, mounted on muslin, engraving 10 in. wide, 20-yd. rolls...	6.75	.40
No. B-0153—Orange, mounted on muslin, engraving 10 in. wide, 20-yd. rolls...	6.75	.40
No. B-0154—Orange, on tracing paper, engraving 20 in. wide, 50 yd. rolls...	10.00	.24
No. B-0155—Orange, on tracing paper, engraving 10 in. wide, 50-yd. rolls...	6.25	.15
No. B-0156—Orange, on tracing cloth, engraving 20 in. wide, 20-yd. rolls...	12.50	.75
No. B-0157—Green, on drawing cloth, engraving 20 in. wide, 20-yd. rolls...	10.00	.60
No. B-0157—Orange, on drawing cloth, engraving 20 in. wide, 20-yd. rolls...	10.00	.60

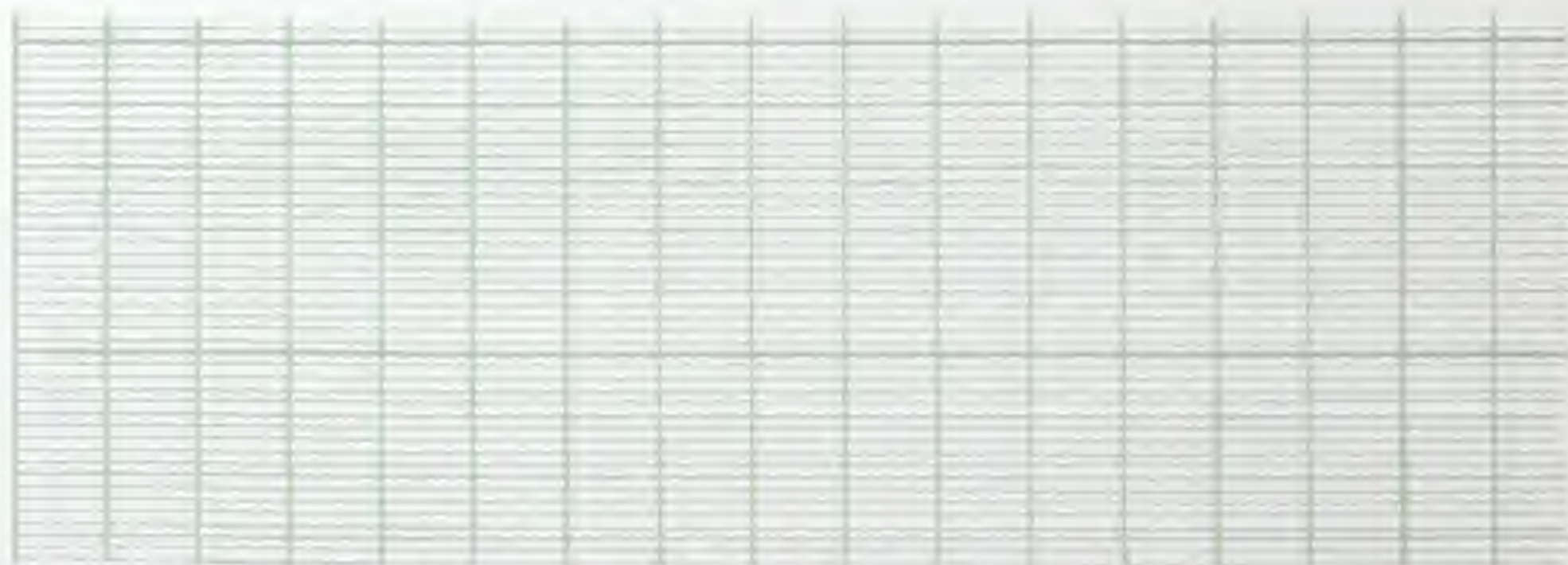


Plate B. 4 x 30 to 1 inch.

	ROLL	YARD
No. B-0160—Green, on drawing paper, engraving 20 in. wide, 50-yd. rolls...	\$10.00	\$0.24
No. B-0160—Orange, on drawing paper, engraving 20 in. wide, 50-yd. rolls...	10.00	.24
No. B-0161—Green, on drawing paper, engraving 9 in. wide, 50-yd. rolls...	6.25	.15
No. B-0161—Orange, on drawing paper, engraving 9 in. wide, 50-yd. rolls...	6.25	.15
No. B-0162—Green, mounted on muslin, engraving 20 in. wide, 20-yd. rolls...	10.00	.60
No. B-0162—Orange, mounted on muslin, engraving 20 in. wide, 20-yd. rolls...	10.00	.60
No. B-0163—Green, mounted on muslin, engraving 9 in. wide, 20-yd. rolls...	6.75	.40
No. B-0163—Orange, mounted on muslin, engraving 9 in. wide, 20-yd. rolls...	6.75	.40
No. B-0164—Orange, on tracing paper, engraving 20 in. wide, 50-yd. rolls...	10.00	.24
No. B-0165—Orange, on tracing paper, engraving 9 in. wide, 50-yd. rolls...	6.25	.15
No. B-0166—Orange, on tracing cloth, engraving 20 in. wide, 20-yd. rolls...	12.50	.75
No. B-0167—Green, on drawing cloth, engraving 20 in. wide, 20-yd. rolls...	10.00	.60
No. B-0167—Orange, on drawing cloth, engraving 20 in. wide, 20-yd. rolls...	10.00	.60



## Peerless Profile-Plan Papers and Cloths



In Profile-Plan Paper, the profile-ruling with its margin is but half the width of the paper, the other half being left blank for sketching difficult cuts or fills, embankments, excavations, etc., and for explanatory notes, so that they are connected for ready reference.

Plate A. 4 x 20 to the inch.

	ROLL	YARD
No. B-0168A—Green, on drawing paper, 50 yd. rolls.	\$10.00	\$0.24
No. B-0168B—Orange, on drawing paper, 50 yd. rolls.	10.00	.24
No. B-0168C—Orange, on tracing paper, 50 yd. rolls.	10.00	.24
No. B-0168D—Orange, on tracing cloth, 20 yd. rolls.	12.50	.75

Plate B. 4 x 30 to the inch.

	ROLL	YARD
No. B-0169A—Green, on drawing paper, 50 yd. rolls.	\$10.00	\$0.24
No. B-0169B—Orange, on drawing paper, 50 yd. rolls.	10.00	.24
No. B-0169C—Orange, on tracing paper, 50 yd. rolls.	10.00	.24
No. B-0169D—Orange, on tracing cloth, 20 yd. rolls.	12.50	.75

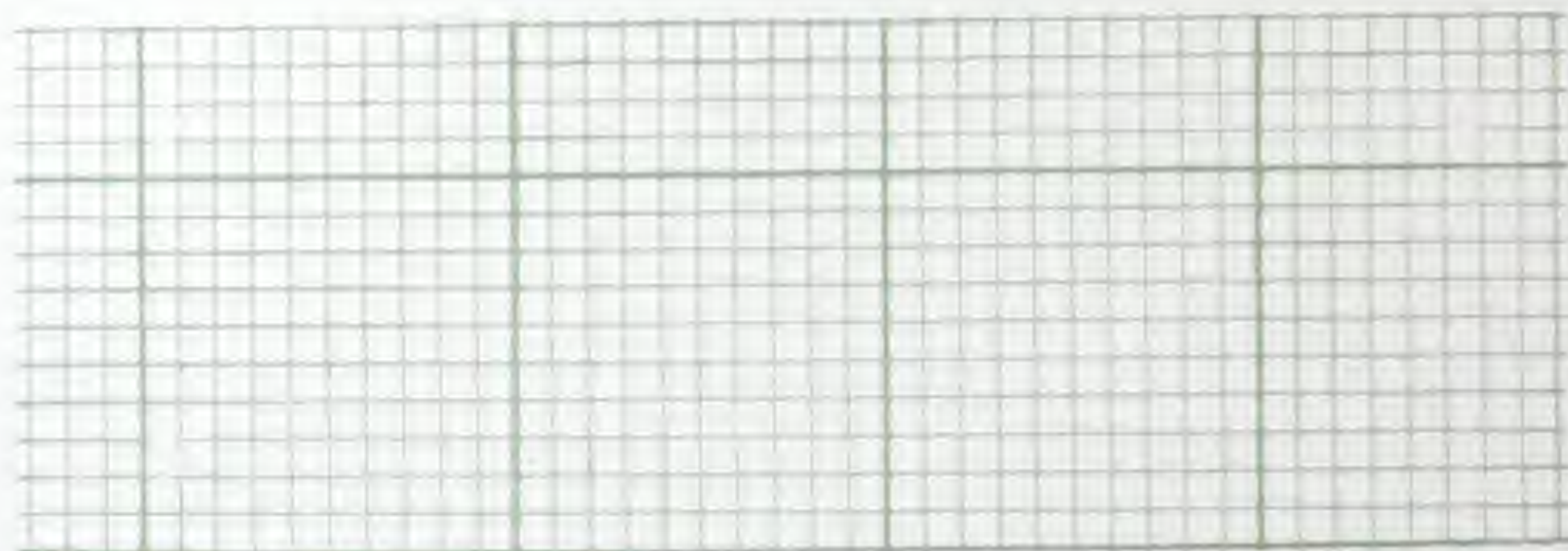


# Peerless Cross Section Papers and Cloths



Millimeter.

	ROLL	YARD
No. B-0170—Green, on drawing paper, engraving 50 c.m. wide, 50-yd. rolls..	\$10.00	\$0.24
No. B-0170—Orange, on drawing paper, engraving 50 c.m. wide, 50-yd. rolls..	10.00	.24
No. B-0171—Green, mounted on muslin, engraving 50 c.m. wide, 20-yd. rolls..	10.00	.60
No. B-0171—Orange, mounted on muslin, engraving 50 c.m. wide, 20-yd. rolls..	10.00	.60
No. B-0174—Orange, on tracing paper, engraving 50 c.m. wide, 50-yd. rolls..	10.00	.24
No. B-0175—Orange, on tracing cloth, engraving 50 c.m. wide, 20-yd. rolls..	12.50	.75



10 x 10 to 1 inch.

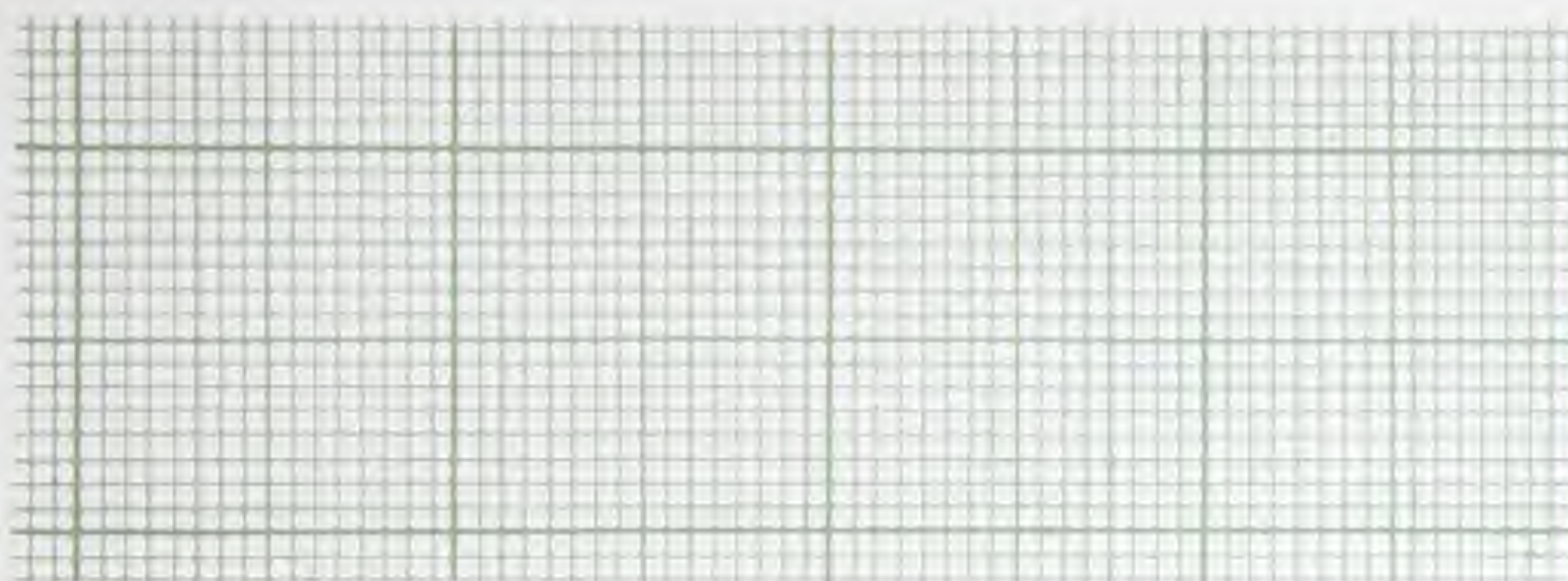
	ROLL	YARD
No. B-0180—Green, on drawing paper, engraving 20 in. wide, 50-yd. rolls..	\$10.00	\$0.24
No. B-0180—Orange, on drawing paper, engraving 20 in. wide, 50-yd. rolls..	10.00	.24
No. B-0181—Green, mounted on muslin, engraving 20 in. wide, 20-yd. rolls..	10.00	.60
No. B-0181—Orange, mounted on muslin, engraving 20 in. wide, 20-yd. rolls..	10.00	.60
No. B-0184—Orange, on tracing paper, engraving 20 in. wide, 50-yd. rolls..	10.00	.24
No. B-0186—Orange, on tracing cloth, engraving 20 in. wide, 20-yd. rolls..	12.50	.75
No. B-0187—Green, on drawing cloth, engraving 20 in. wide, 20-yd. rolls..	10.00	.60
No. B-0187—Orange, on drawing cloth, engraving 20 in. wide, 20-yd. rolls..	10.00	.60

## Sheets.

	QUIRE	SHEET
No. B-0188 —Green, on ledger paper, engraving 16x20 in.....	\$ 3.50	\$0.20
No. B-0189 —Orange, on ledger paper, engraving 16x20 in.....	3.50	.20
No. B-0189A—Orange, on tracing paper, engraving 16x20 in.....	3.50	.20



## Peerless Cross Section Papers—Continued

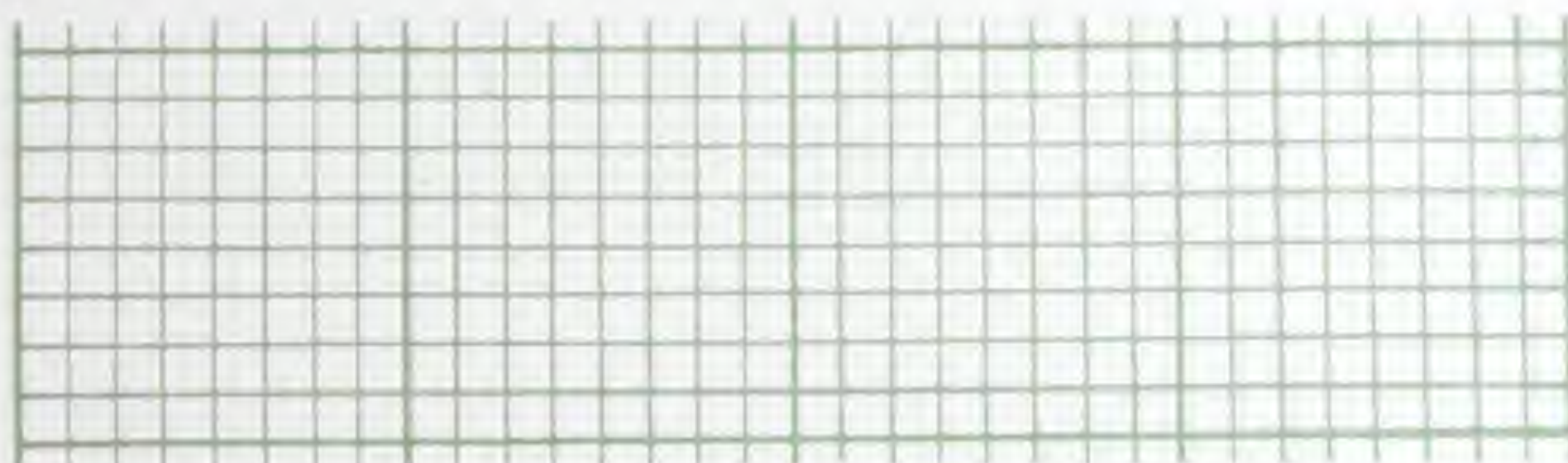


16 x 16 to 1 inch.

	ROLL	YARD
No. B-0190—Green, on drawing paper, engraving 20 in. wide, 50-yd. rolls....	\$10.00	\$0.24
No. B-0191—Orange, on drawing paper, engraving 20 in. wide, 50-yd. rolls....	10.00	.24

Sheets.

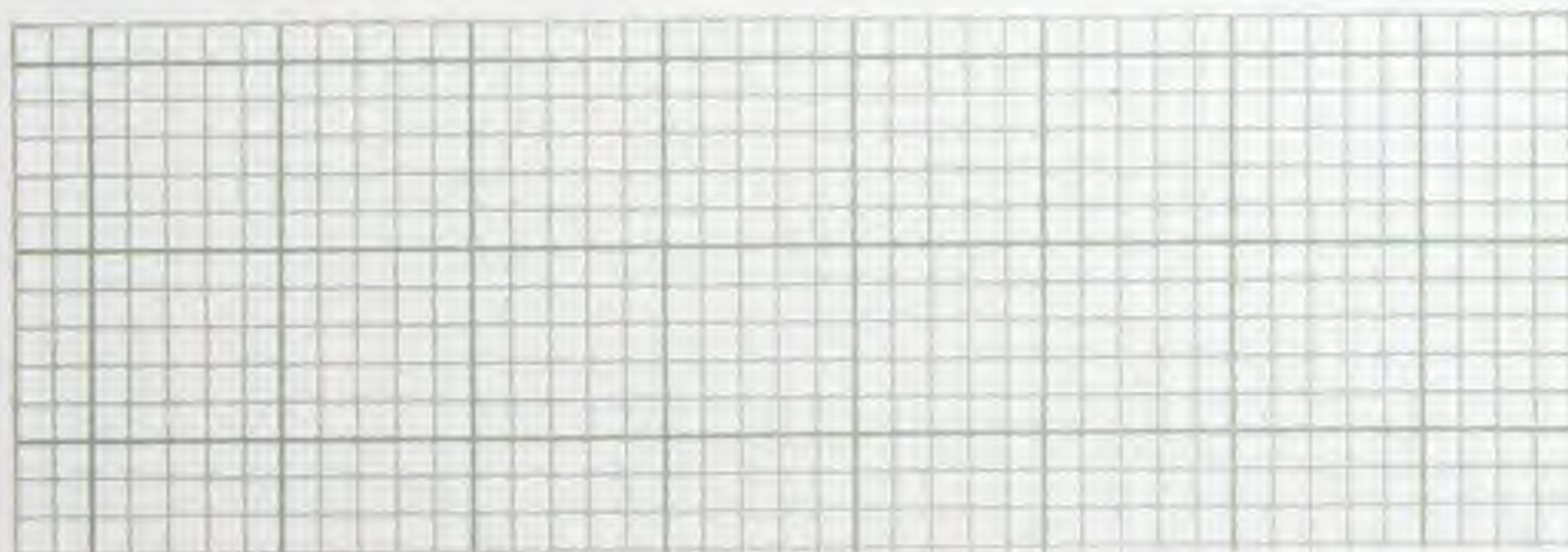
	QUIRE	SHEET
No. B-0194—Green, on ledger paper, engraving 16x21 in.....	\$ 3.50	\$0.20
No. B-0195—Orange, on ledger paper, engraving 16x21 in.....	3.50	.20
No. B-0196—Orange, on tracing paper, engraving 16x21 in.....	3.50	.20



8 x 8 to 1 inch.

Sheets only.

	QUIRE	SHEET
No. B-0197—Green, on ledger paper, engraving 16x21 in.....	\$3.50	\$0.20
No. B-0198—Orange, on ledger paper, engraving 16x21 in.....	3.50	.20
No. B-0199—Orange, on tracing paper, engraving 16x21 in.....	3.50	.20



5 x 5 to 1/2 inch.

Sheets only.

	QUIRE	SHEET
No. B-0200—Green, on ledger paper, engraving 16x20 in.....	\$3.50	\$0.20
No. B-0201—Orange, on ledger paper, engraving 16x20 in.....	3.50	.20
No. B-0202—Orange, on tracing paper, engraving 16x20 in.....	3.50	.20





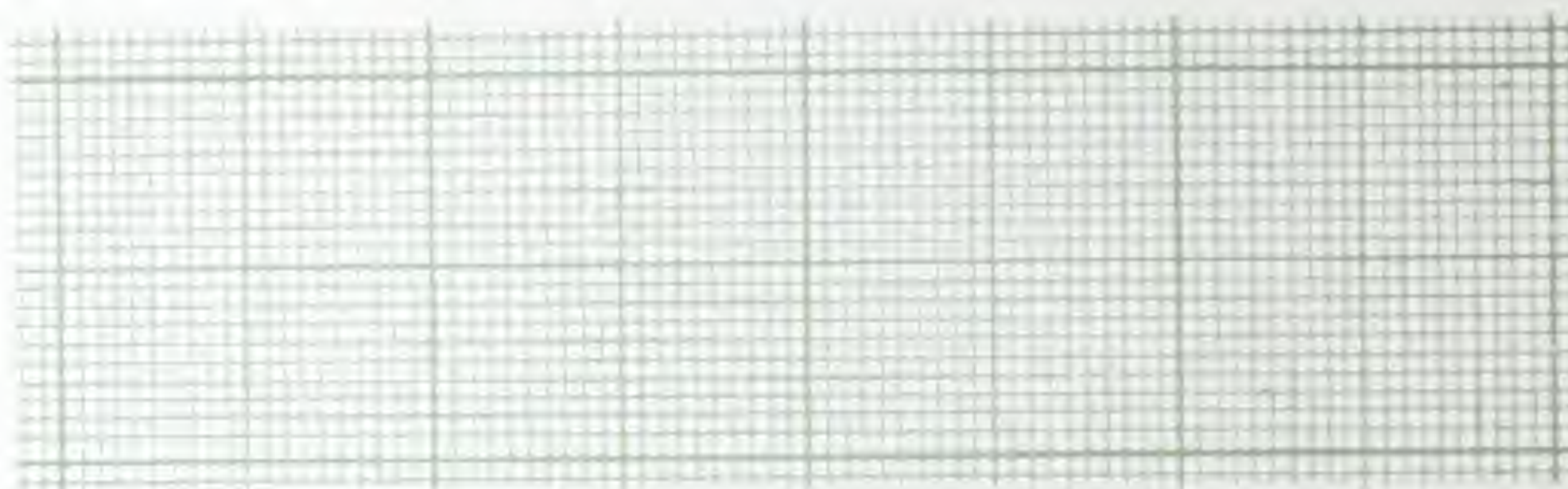
## Peerless Cross Section Papers—Continued



12 x 12 to 1 inch.

Sheets only.

	QUIRE	SHEET
No. B-0203—Green, on ledger paper, engraving 16x20 in.....	\$3.50	\$0.20



20 x 20 to 1 inch, every tenth line heavy.

100 SHEETS QUIRE

No. B-0210—Green only, on drawing paper, engraving 5x7 in.....	\$0.90	\$0.25
No. B-0211—Orange only, on tracing paper, engraving 5x7 in.....	.90	.25
No. B-0212—Green only, on drawing paper, engraving 7x10 in.....	1.20	.30
No. B-0213—Orange only, on tracing paper, engraving 7x10 in.....	1.20	.30

5 x 5 to 1 inch.

100 SHEETS QUIRE

No. B-0214—Green only, on drawing paper, engraving 8x10 in.....	\$1.75	\$0.50
No. B-0215—Orange only, on tracing paper, engraving 8x10 in.....	1.75	.50

## Constructors' Sketch Paper—Printed



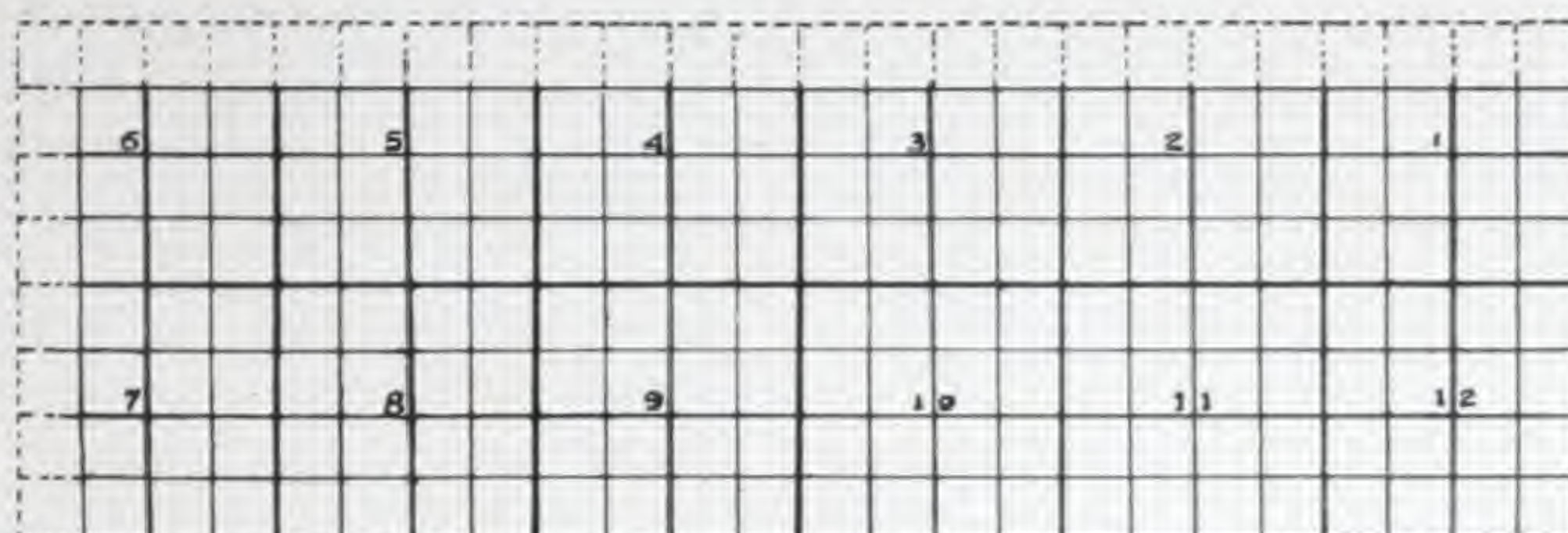
10 x 10 to 1/4 inch, every fifth line heavy.

100 SHEETS QUIRE

No. B-0204—Orange or neutral tint, on drawing paper, engraving 5x7 in.....	\$0.90	\$0.25
No. B-0205—Orange only, on tracing paper, engraving 5x7 in.....	.90	\$0.25
No. B-0206—Orange or neutral tint, on drawing paper, engraving 7x10 in.....	1.20	.30
No. B-0207—Orange only, on tracing paper, engraving 7x10 in.....	1.20	.30
No. B-0208—Orange or neutral tint, on drawing paper, engraving 10x15 in.....	2.40	.75
No. B-0209—Orange only, on tracing paper, engraving 10x15 in.....	2.40	.75



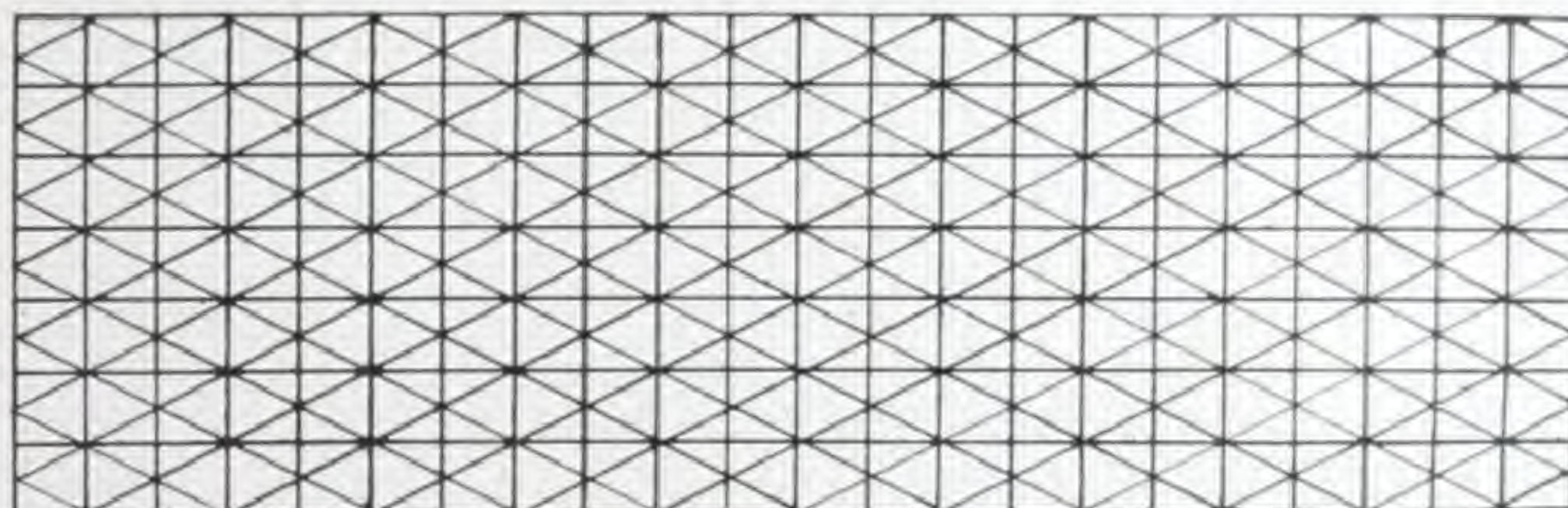
## Township Paper



	100 SHEETS	SHEET
No. B-0216—Engraving 6x6 in., scale 1 in. to 1 mile, black only .....	\$2.10	\$0.05
No. B-0217—Engraving 12x12 in., scale 2 in. to 1 mile, black only .....	4.20	.10

## Isometric Sketching Paper

For making Drawings and Sketches in Isometric Perspective.



No. B-0218—Printed in green, in sheets 12x18 in., per 100 sheets.	\$3.75
No. B-0219—Printed in green, in pads of 40 sheets, 6x9 in., per pad .....	.45
No. B-0220—Printed in green, in pads of 40 sheets, 9x12 in., per pad .....	.90

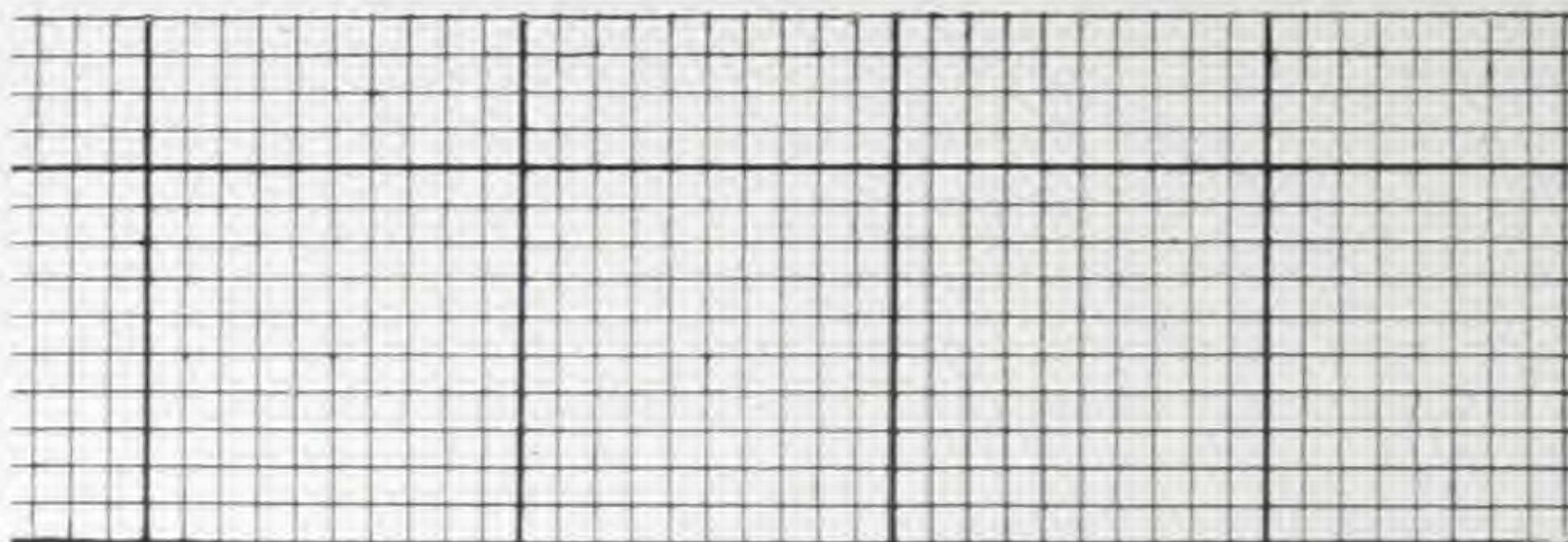
## Logarithmic Cross Section Paper

The scales on each side of this paper are logarithmic, instead of uniform as in other cross section papers. The numbers and divisions marked are placed at such points that their distances from the origin are proportional to the logarithm of such numbers instead of to the numbers themselves.

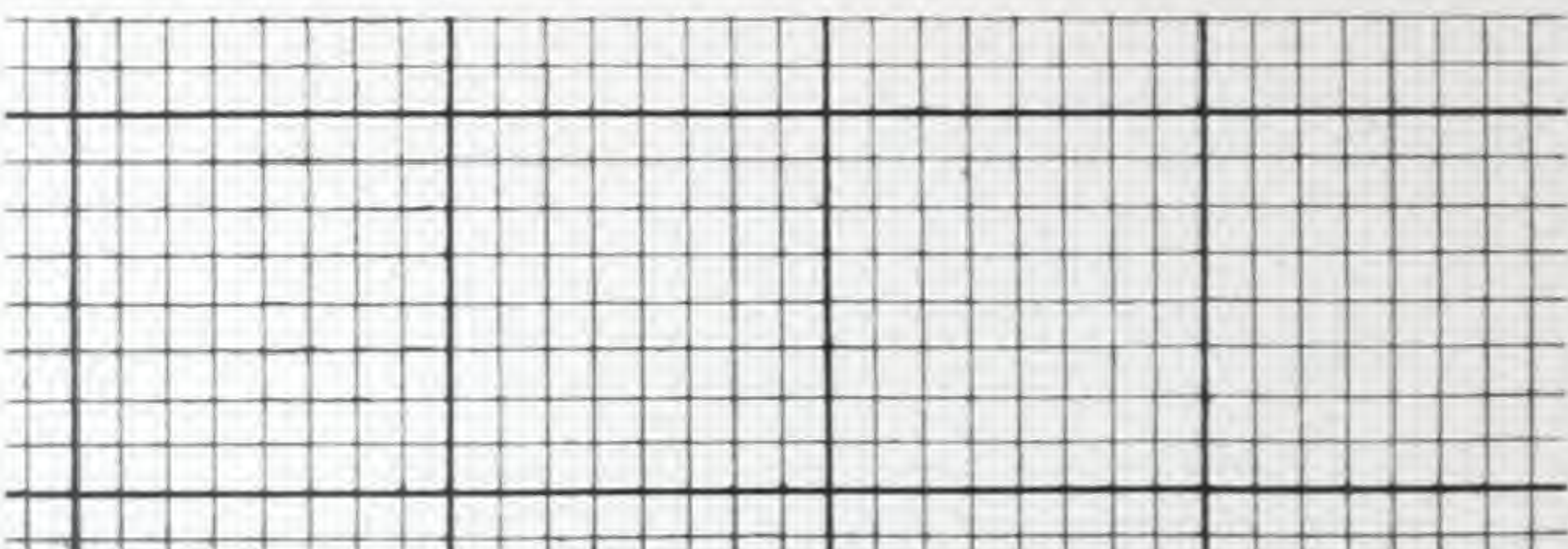
	QUIRE	SHEET
No. B-0221—LOGARITHMIC PAPER, engraving 10x10 inches .....	\$3.00	\$0.18
Our complete sample book of Papers sent on request.		



## Ruled Cross Section Papers



No. B-0224—CROSS SECTION PAPER, 16x21 inches, ruled in blue, 10x10 to 1 in. . . . \$1.00 PER QUIRE



No. B-0225—CROSS SECTION PAPER, 16x21 inches, ruled in blue, 8x8 to 1 in. . . . \$1.00 PER QUIRE



No. B-0226—CROSS SECTION PAPER, 16x21 inches, ruled in blue, 5x5 to 1 in. . . . \$1.00 PER QUIRE



No. B-0227—TOPOGRAPHICAL PAPER, 16x21 inches, ruled in blue and red, 400 ft. to 1 in. . . . per quire \$1.00



## Sketch Blocks and Portfolios

### Blocks of Printed Cross Section Paper

	BLOCK
No. B-0240—5x7 in., 10x10 to 1 in., 24 sheets printed in green. .	\$0.85
No. B-0241—5x7 in., 8x8 to 1 in., 24 sheets printed in green. .	.85
No. B-0242—7x10 in., 10x10 to 1 in., 24 sheets printed in green. .	1.40
No. B-0243—7x10 in., 8x8 to 1 in., 24 sheets printed in green. .	1.40

### Blocks of Ruled Cross Section Paper

	BLOCK
No. B-0245—8x10 in., 10x10 to 1 in., ruled in blue, 24 sheets. . .	\$0.60
No. B-0246—8x10 in., 8x8 to 1 in., ruled in blue, 24 sheets. . .	.60

### Solid Sketch Blocks, Plain

	7x10	9x12	10x14	14x20
No. B-0248—ALCYONE paper, per block. \$0.40	\$0.60	\$0.70	\$1.15	
No. B-0249—WHATMAN'S paper, per block . . . . .	.90	1.20	1.50	3.00

### Solid Sketch Blocks, Bound

Leather Back and Corners, Cloth Sides, Pencil Loop.

	7x10	9x12	10x14	14x20
No. B-0251—ALCYONE paper, per block. \$1.20	\$1.50	\$1.80	\$2.75	
No. B-0252—WHATMAN'S paper, per block . . . . .	1.60	2.25	2.75	4.75

### Portfolios

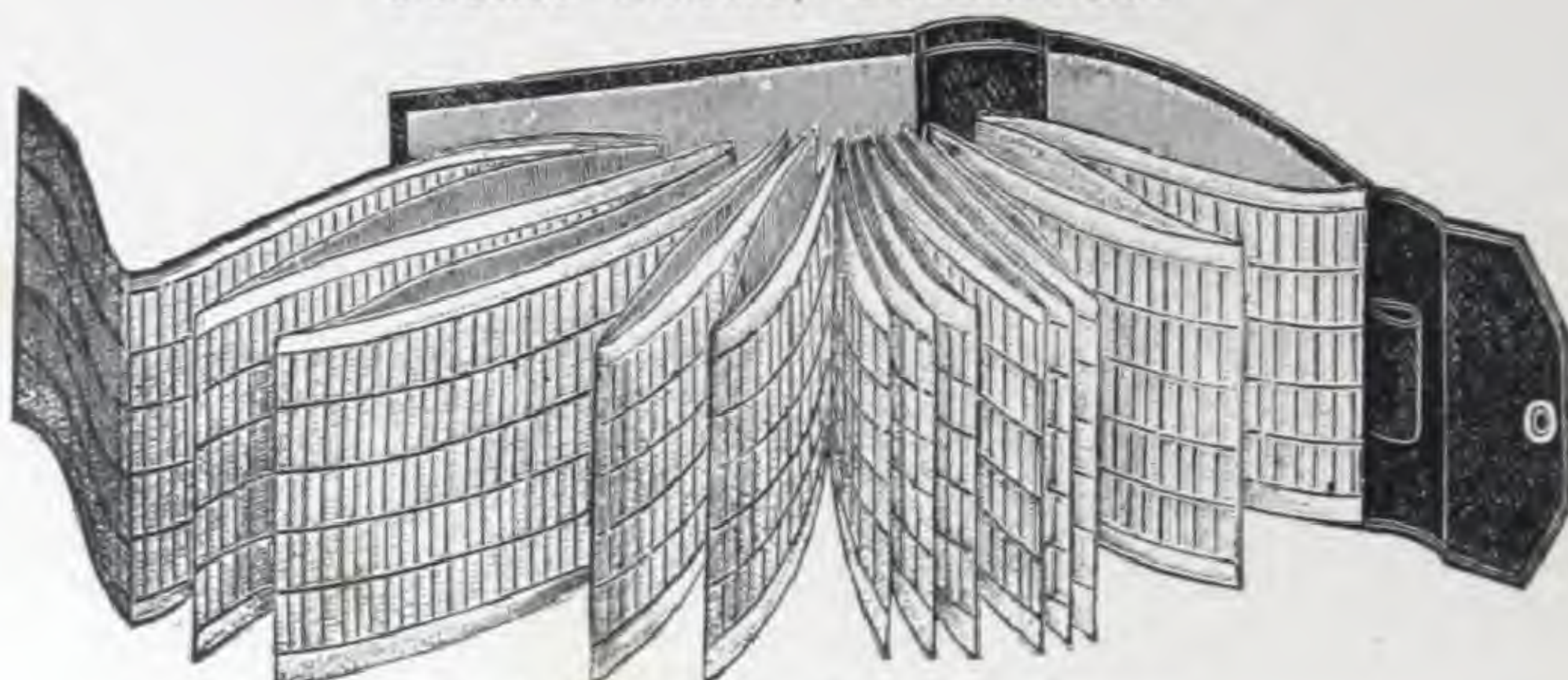


No. B-0255

No. B-0255—PORTFOLIO. Paper Sides, Cloth Back and Corners.					
Sizes . . . . .	12x16	14x18	17x22	20x26	23x31
Each . . . . .	\$0.60	\$0.75	\$0.80	\$1.15	\$1.65
No. B-0256—PORTFOLIO. Cloth Sides, Leather Back and Corners.					
Sizes . . . . .	12x16	14x18	17x22	20x26	23x31
Each . . . . .	\$1.10	\$1.40	\$1.65	\$2.20	\$2.75



## Profile Books, Continuous



Bound in Flexible Morocco Covers.

These books are folded like a map to replace the continuous rolls of profile paper, and the pages are mounted on muslin. Each leaf, or two pages facing, contains 6,000 feet—a section as generally laid out for the construction of a road. The paper lies smooth, and is of extra fine quality.

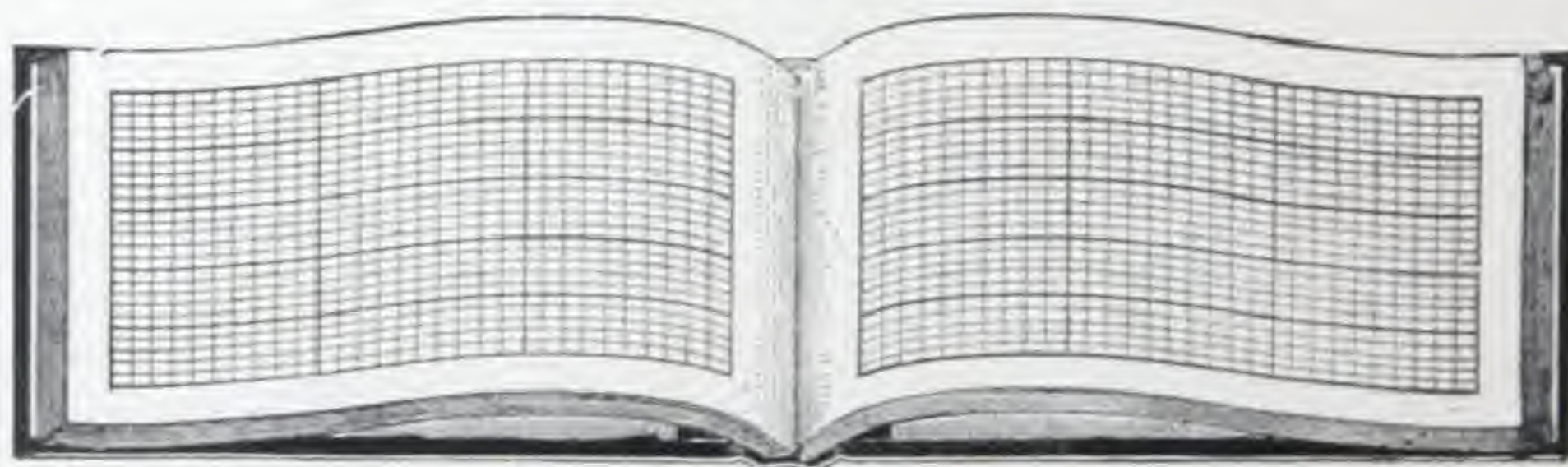
No. B-0260—PROFILE BOOK, Plate A, 4x20 to 1 in., 5½x8 in., printed in green.

Miles .....	12	25	50	100
Each .....	\$2.50	\$3.50	\$5.50	\$9.50

No. B-0261—PROFILE BOOK, Plate B, 4x30 to 1 in., 4¾x8 in., printed in green.

Miles .....	12	25	50	100
Each .....	\$2.50	\$3.50	\$5.50	\$9.50

## Profile Books, Not Continuous



Stiff Morocco Covers.

No. B-0263—PROFILE BOOK, Plate A, 4x20 to 1 in., size of book, 7x10 inches, printed in green.

Leaves .....	25	50	100
Each .....	\$2.00	\$2.75	\$4.50

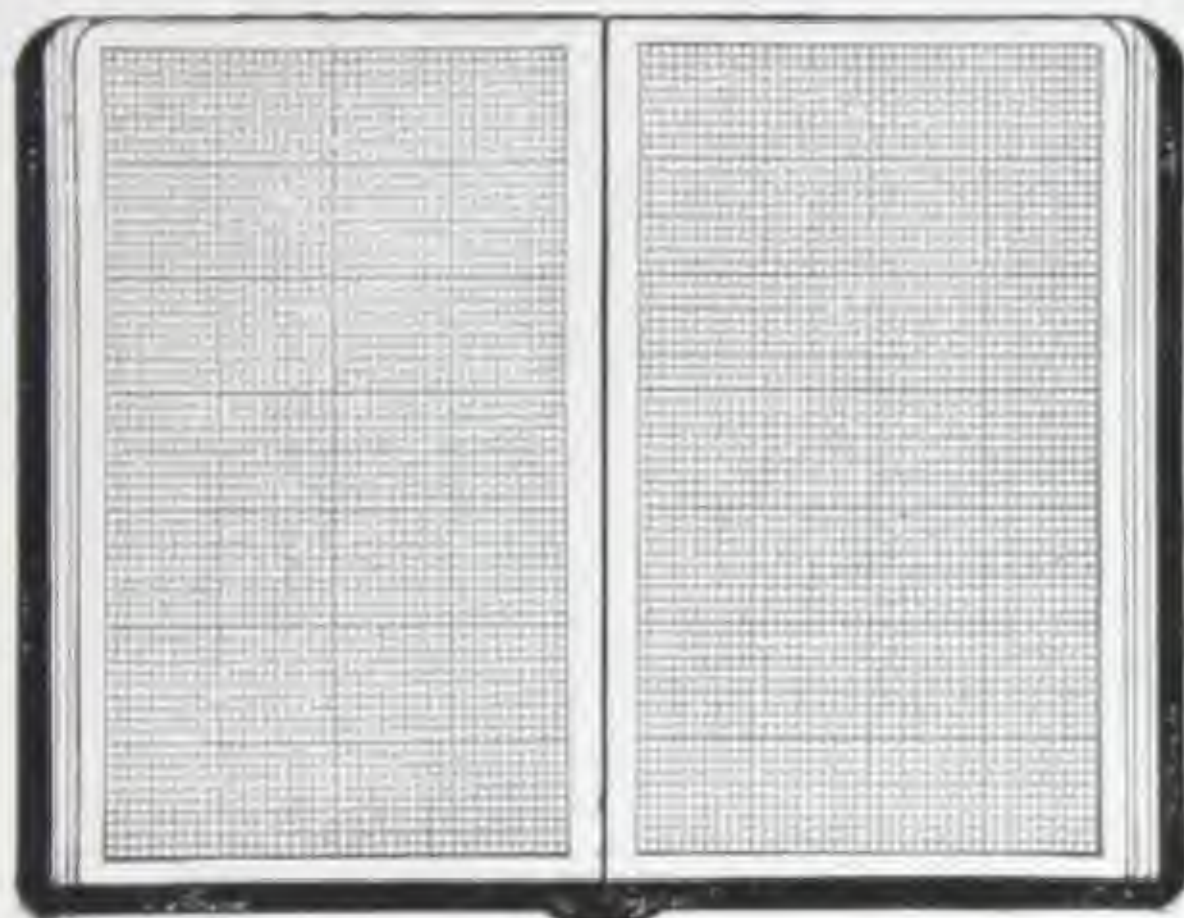
No. B-0264—PROFILE BOOK, Plate B, 4x30 to 1 in., size of book, 5½x9½ inches, printed in green.

Leaves .....	25	50	100
Each .....	\$2.00	\$2.75	\$4.50



## Engineers' Field Books

Made of special high quality paper with waterproof rulings. Bound in sheepskin, with round corners and round back to lie flat. Furnished with complete tables.



No. B-0270

CROSS SECTION BOOK, ruled 10x10 to 1 inch.

No. B-0270,  $4\frac{5}{8} \times 7\frac{1}{2}$  in., 72 leaves.

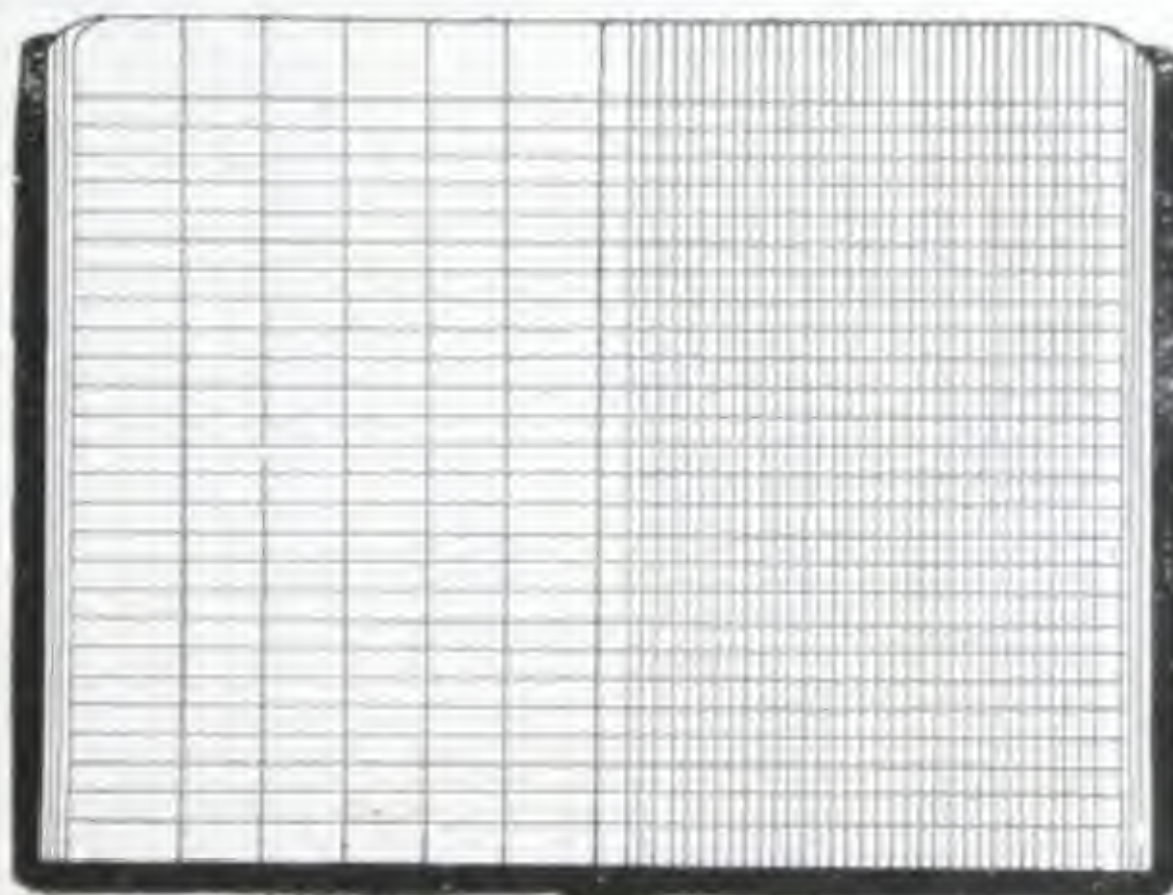
Each \$0.90; dozen, \$9.25

No. B-0272,  $6\frac{1}{2} \times 8\frac{1}{2}$  in., 72 leaves.

Each \$1.20; dozen, \$12.25

No. B-0276—FIELD BOOK,  $4\frac{5}{8} \times 7\frac{1}{2}$  in., 72 leaves.

Each \$0.90; dozen, \$9.25



No. B-0276



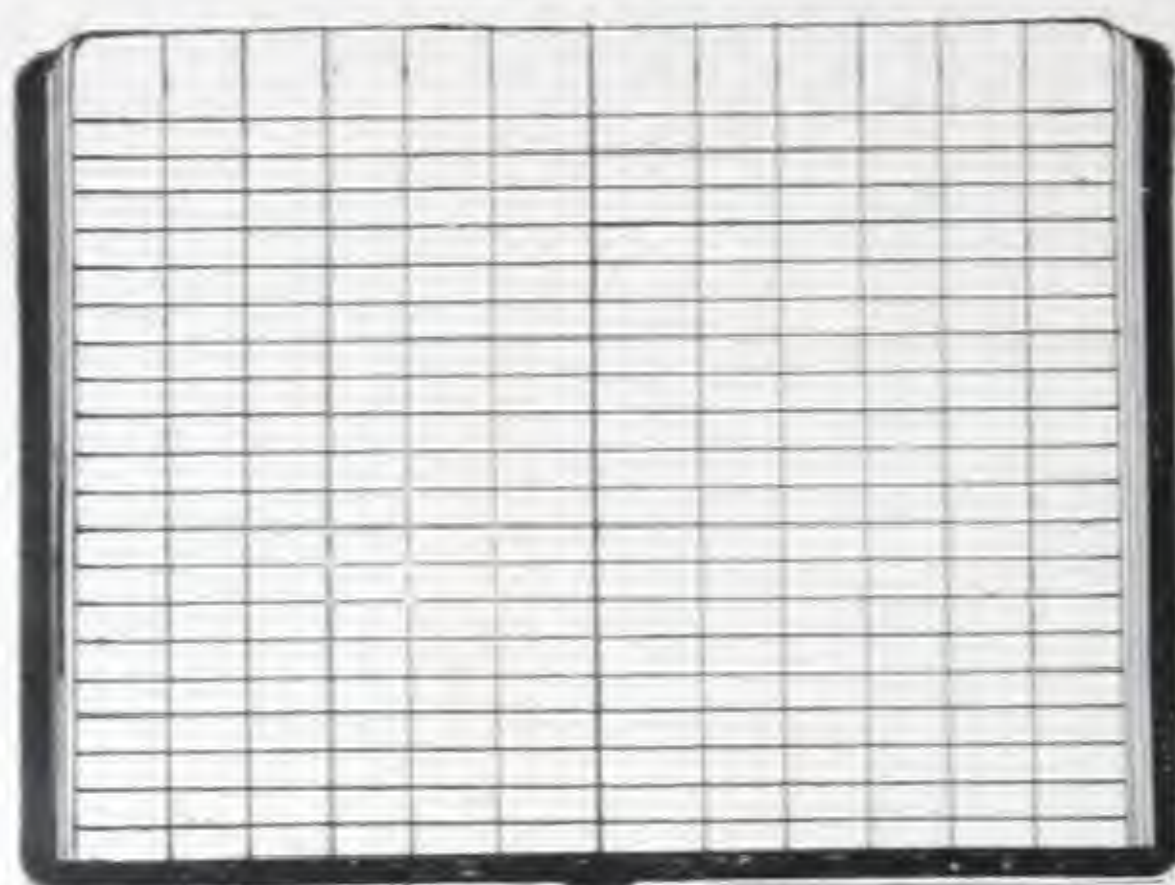
No. B-0278

No. B-0278—TRANSIT BOOK,  $4\frac{5}{8} \times 7\frac{1}{2}$  in., 72 leaves.

Each \$0.90; dozen, \$9.25



# Engineers' Field Books—Continued



No. B-0280

No. B-0280—L E V E L  
BOOK,  $4\frac{5}{8} \times 7\frac{1}{2}$  in., 72  
leaves.

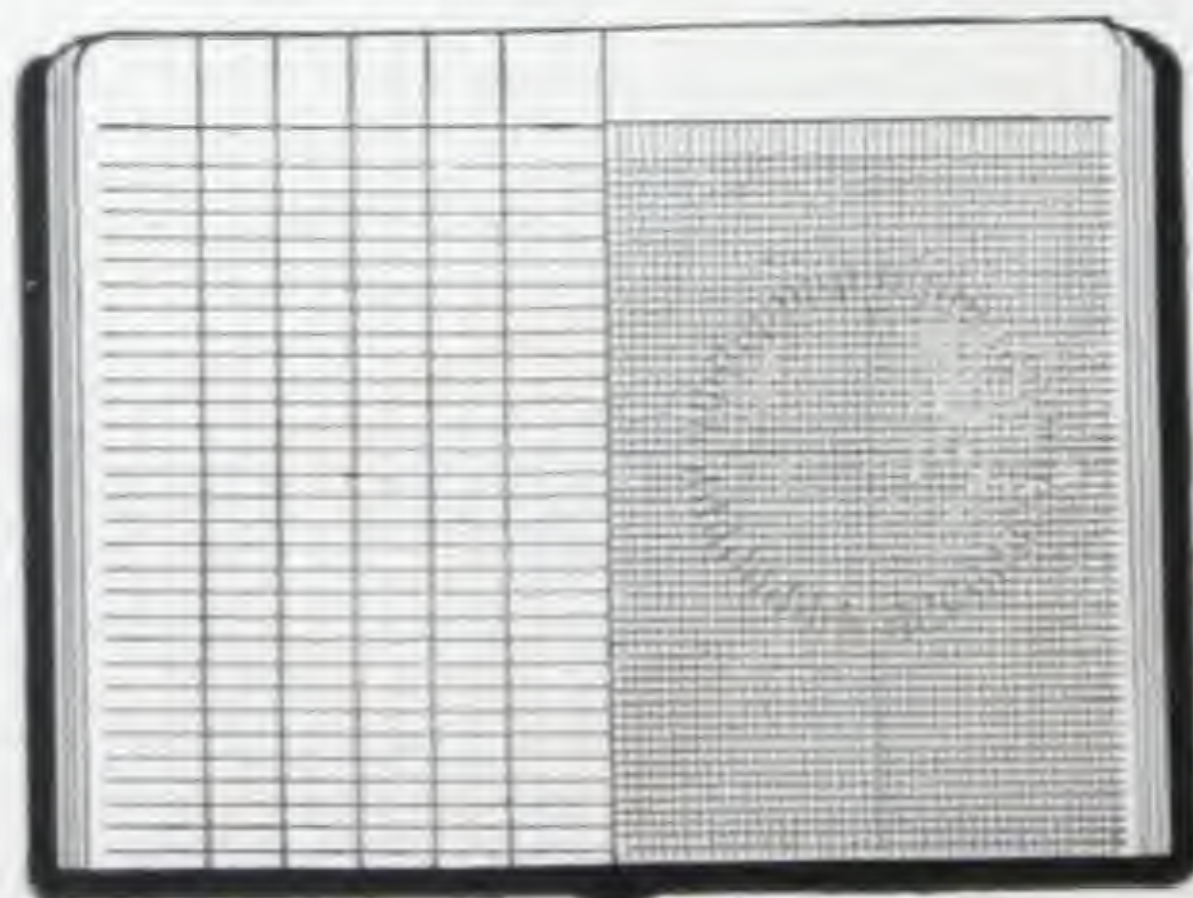
Each \$0.90; dozen, \$9.25



No. B-0282

No. B-0282—F I E L D  
BOOK,  $4\frac{5}{8} \times 7\frac{1}{2}$  in., 72  
leaves.

Each \$0.90; dozen, \$9.25



No. B-0284

No. B-0284—IMPROVED  
F I E L D BOOK, with  
faintly ruled protector,  
divided to five degrees.  
 $4\frac{5}{8} \times 7\frac{1}{2}$  in., 72 leaves.

Each \$0.90; dozen, \$9.25



## Engineers' Field Books—Loose Leaf



No. B-0285

For holding loose leaf sheets with rulings, same as our numbers B-0276, B-0278 and B-0280. Covers are stiff with round corners, bound in Morocco or waterproof black cloth, with metal backs and six rings which can be opened with one operation, permitting the leaves to lie perfectly flat. Leaves are of high grade stock with water-proof rulings.

- |  |        |
|--|--------|
| No. B-0285—LOOSE LEAF FIELD BOOK, bound in Morocco, without fillers. Each.....                         | \$2.00 |
| No. B-0286—LOOSE LEAF FIELD BOOK, bound in waterproof black cloth, without fillers. Each.....          | 1.50   |
| No. B-0287A—LOOSE LEAF FILLERS, ruling same as Field Book No. B-0276, 50 sheets in set. Per set.....   | .40    |
| No. B-0287B—LOOSE LEAF FILLERS, ruling same as Transit Book No. B-0278, 50 sheets in set. Per set..... | .40    |
| No. B-0287C—LOOSE LEAF FILLERS, ruling same as Level Book No. B-0280, 50 sheets in set. Per set.....   | .40    |



## "Standard" Blanks for the Building Trades

### Blank Form Specifications and Reminder

These blanks have been thoroughly revised and are fully up-to-date.

No. B-0290—STANDARD SPECIFICATIONS.

Single sets. . . . \$0.30; dozen sets. . . . \$3.00; 100 sets. . . . \$22.50

The Standard Blank Form Specifications consist of the following in strong manila covers:

Preamble	Plumbers
Masons	Sewers
Plasterers	Structural Iron
Carpenters	Galvanized Iron
Painters	Heating
Wiring	Contractor's Statement
Contract between Owner and Architect	
Agreement between Architect (or owner) and Contractor	

	DOZEN	100
No. B-0291—PRINTED COVERS for Specifications. . . . .	\$0.45	\$3.60
No. B-0292—BUILDING CONTRACTS . . . . .	.35	2.50
No. B-0293—BUILDING CONTRACTS with bond. . . . .	.35	2.50
No. B-0294—STANDARD DOCUMENTS (replacing the Uni- form Contracts, No. 294, now out of print). Per set. . . . .		\$0.15

	EACH
A—Agreement and General Conditions. . . . .	\$0.10
B—General Conditions without Agreement. . . . .	.08
C—Bond of Suretyship. . . . .	.02
D—Form of Subcontract . . . . .	.02
E—Letter of Acceptance of Subcontractor's Proposal. . . . .	.01

	DOZEN	100
No. B-0296—MECHANICS' LIEN NOTICE. . . . .	\$0.35	\$2.50
No. B-0297—WAIVER OF LIEN. . . . .	.35	2.50
No. B-0298—ARCHITECTS' CERTIFICATE BOOKS, 100 blanks. Each. . . . .		.40



## Alteneder Ruling Pens

Made in U. S. A.



No. B-0500   No. B-0502   No. B-0504   No. B-0510   No. B-0512   No. B-0514

No. B-0516

	EACH
No. B-0500—PLAIN RULING PEN, $4\frac{1}{2}$ in. ebony handle.....	\$1.70
No. B-0502—PLAIN RULING PEN, 5 in. ebony handle.....	2.00
No. B-0504—PLAIN RULING PEN, $5\frac{1}{2}$ in. ebony handle....	2.35
No. B-0510—RULING PEN, $4\frac{1}{2}$ in. spring back, ebony handle.	1.85
No. B-0512—RULING PEN, 5 in. spring back, ebony handle..	2.20
No. B-0514—RULING PEN, $5\frac{1}{2}$ in. spring back, ebony handle.	2.50
No. B-0516—SWIVEL CURVE PEN, $4\frac{3}{4}$ in. spring back, ebony handle .....	2.75



## Alteneder Ruling Pens—Continued

Made in U. S. A.



No. B-0517



No. B-0521

	EACH
No. B-0517—ALTENEDER LEVER RULING PEN, 4¼ in. . .	\$3.25
No. B-0518—ALTENEDER LEVER RULING PEN, 5 in. . .	3.25
No. B-0519—ALTENEDER LEVER RULING PEN, 5½ in. . .	3.25
No. B-0521—ALTENEDER SPRING HINGE RULING PEN, 4¼ in. . . . .	3.75
No. B-0523—ALTENEDER SPRING HINGE RULING PEN, 5 in. . . . .	3.75
No. B-0525—ALTENEDER SPRING HINGE RULING PEN, 5½ in. . . . .	3.75

## Alteneder Swedish Ruling Pens



No. B-0526



No. B-0527

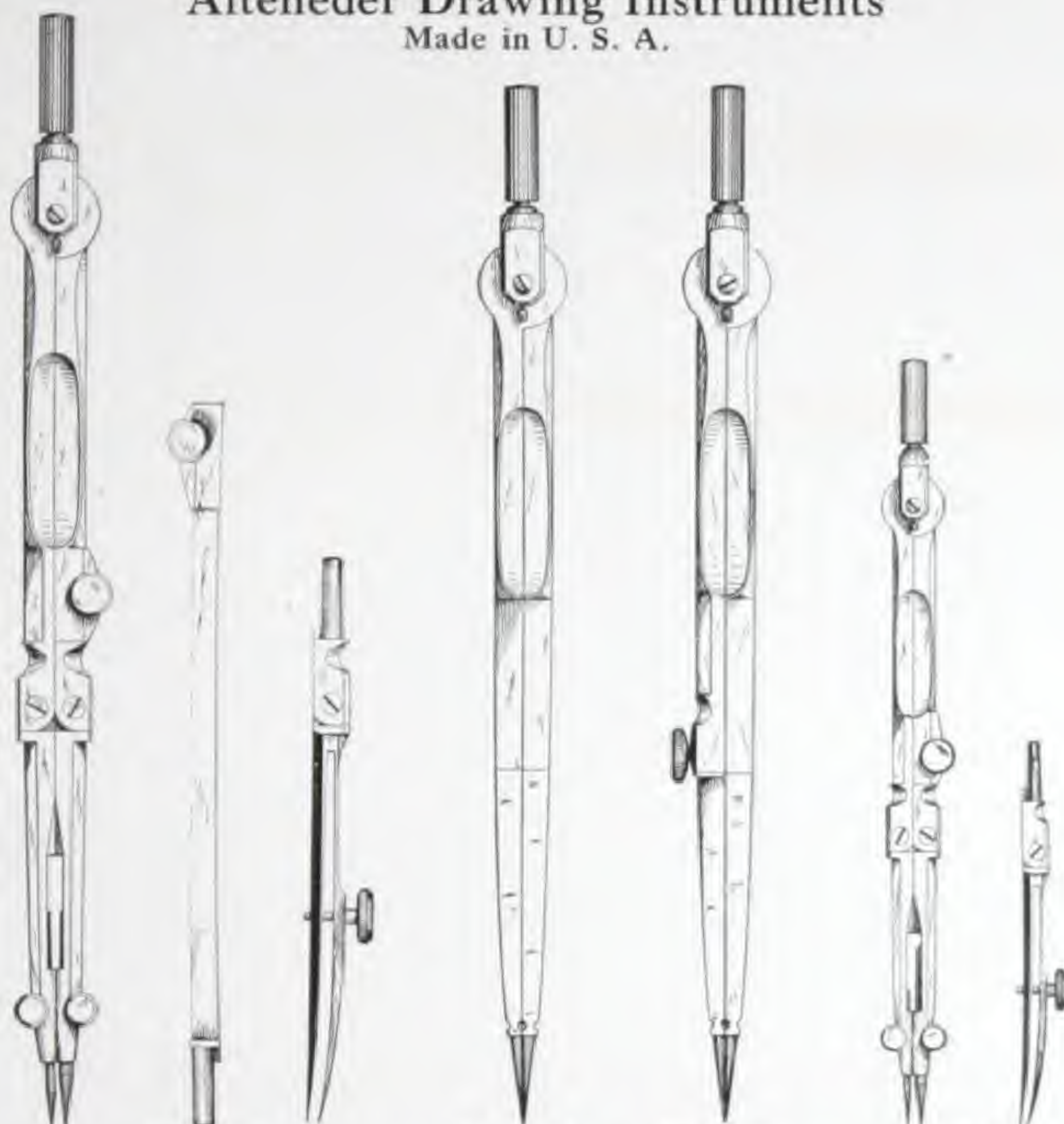


No. B-0528

	EACH
No. B-0526—ALTENEDER SWEDISH RULING PEN, 5 in. . .	\$2.50
No. B-0527—ALTENEDER SWEDISH RULING PEN, 6 in. . .	2.75
No. B-0528—ALTENEDER SWEDISH RULING PEN, 7 in. . .	3.00



# Alteneder Drawing Instruments Made in U. S. A.



	No. B-0530	No. B-0535	No. B-0537	No. B-0550	EACH
No. B-0530—COMPASS, 5½ in., fixed needle point leg, pen, pencil and lengthening bar .....					\$10.00
No. B-0532—COMPASS, same as No. B-0530, but with hair spring adjustment .....					12.00
No. B-0535—PLAIN DIVIDER, 5 in. ....					3.25
No. B-0537—HAIR SPRING DIVIDER, 5 in. ....					5.25
No. B-0540—COMPASS, 4½ in., fixed needle point leg, pen, pencil and lengthening bar .....					9.50
No. B-0542—COMPASS, same as No. B-0540, but with hair spring adjustment .....					11.50
No. B-0545—PLAIN DIVIDER, 4½ in. ....					3.25
No. B-0547—HAIR SPRING DIVIDER, 4½ in. ....					5.00
No. B-0550—COMPASS, 3½ in., fixed needle point leg, pen and pencil points .....					8.00
No. B-0552—COMPASS, same as No. B-0550, but with hair spring adjustment .....					10.00
No. B-0553—COMPASS, 3½ in., fixed needle point leg and pen, hair spring adjustment .....					7.25
No. B-0554—COMPASS, 3½ in., fixed needle point leg and pencil, hair spring adjustment .....					7.25
No. B-0555—PLAIN DIVIDER, 3½ in. ....					3.00
No. B-0557—HAIR SPRING DIVIDER, 3½ in. ....					4.65



## Altener Spring Bow Instruments

Made in U. S. A.



No. B-0560



No. B-0562



No. B-0564

	EACH
No. B-0560—BOW SPACER, $3\frac{1}{4}$ inch, metal handle.....	\$2.35
No. B-0562—BOW PENCIL, $3\frac{1}{4}$ inch, metal handle.....	3.25
No. B-0564—BOW PEN, $3\frac{1}{4}$ inch, metal handle.....	3.25



No. B-0570



No. B-0572



No. B-0574

	EACH
No. B-0570—BOW SPACER, $3\frac{1}{4}$ inch, center adjustment, metal handle..	\$3.45
No. B-0572—BOW PENCIL, $3\frac{1}{4}$ inch, center adjustment, metal handle..	4.25
No. B-0574—BOW PEN, $3\frac{1}{4}$ inch, center adjustment, metal handle.....	4.25



# Alteneder Spring Bow Instruments--Continued

Made in U. S. A.



No. B-0580



No. B-0582

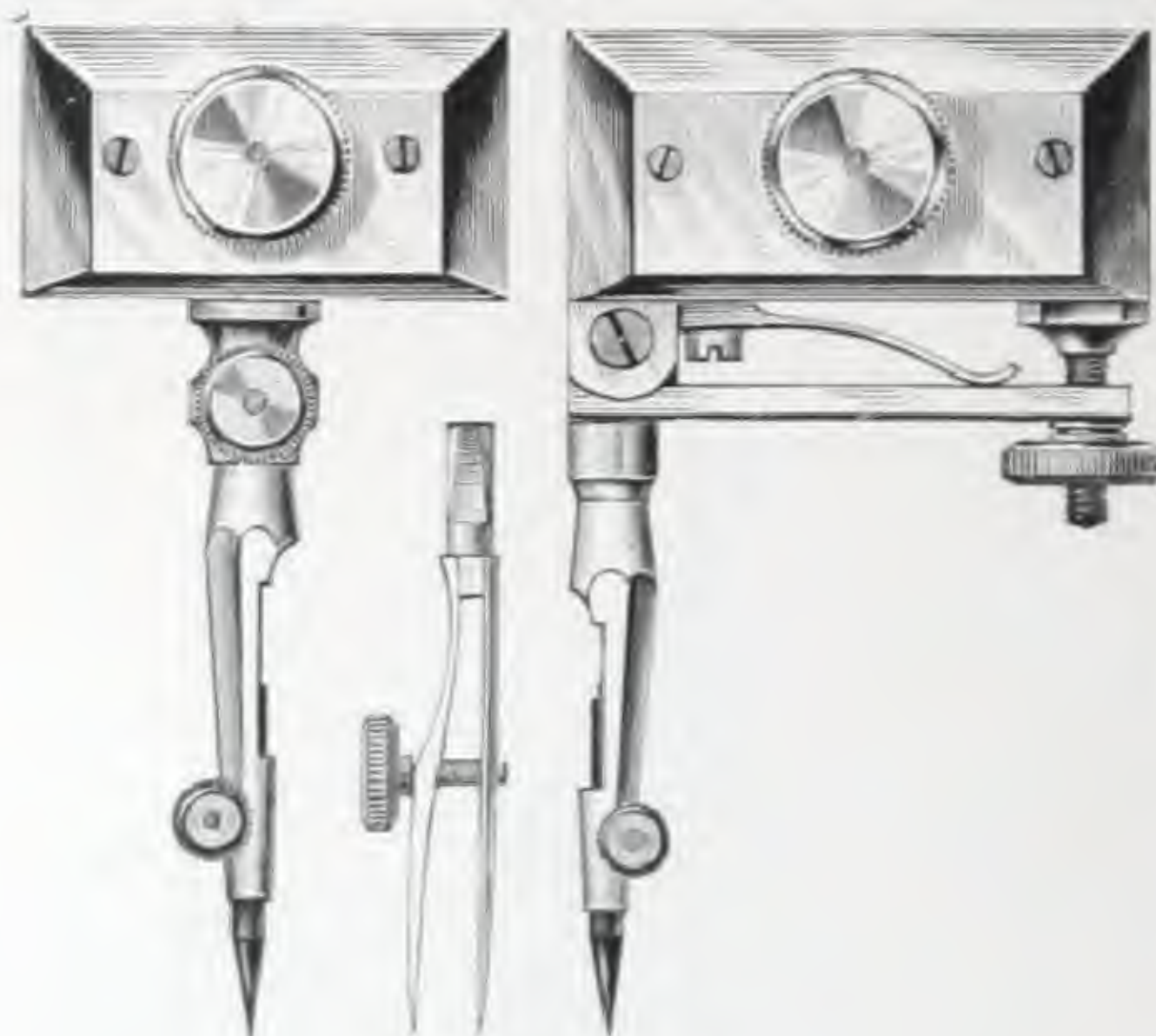


No. B-0586

	EACH
No. B-0580—ALTENEDER SPRING BOW PENCIL, 4 in. . . . .	\$5.25
No. B-0582—ALTENEDER SPRING BOW PEN, 4 in. . . . .	5.25
No. B-0584—ALTENEDER SPRING BOW PEN, 4 in., with spring hinge pen. . . . .	7.00
No. B-0586—ALTENEDER SPRING BOW PEN AND PEN- CIL, 4 in. . . . .	6.50
No. B-0588—ALTENEDER SPRING BOW PEN AND PEN- CIL, 4 in., with spring hinge pen. . . . .	8.25



## Alteneder Beam Compasses

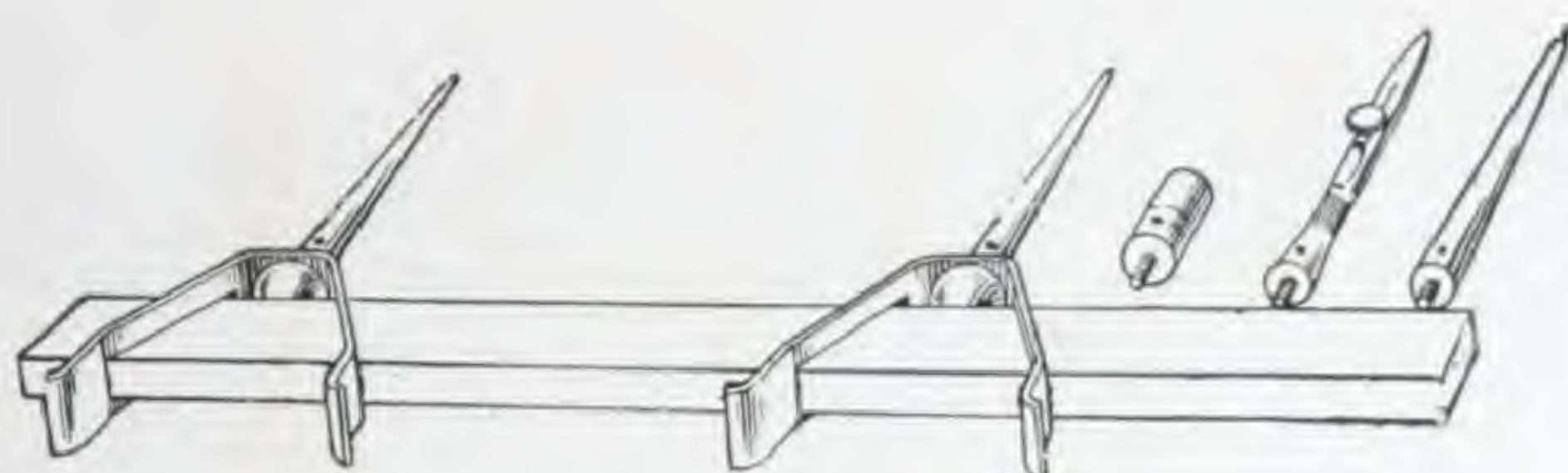


No. B-0782

	EACH
No. B-0780—ALTENEDER SMALL BEAM COMPASS, interchangeable needle point, pen and pencil legs, micrometer adjustment .....	\$11.00
No. B-0781—ALTENEDER SMALL BEAM COMPASS, same as No. B-0780, but with spring hinge pen..	11.60
No. B-0782—ALTENEDER LARGE BEAM COMPASS, interchangeable needle point, pen and pencil legs, micrometer adjustment .....	12.00
No. B-0783—ALTENEDER LARGE BEAM COMPASS, same as No. B-0782, but with spring hinge pen..	12.85



## Steel Beam Compasses

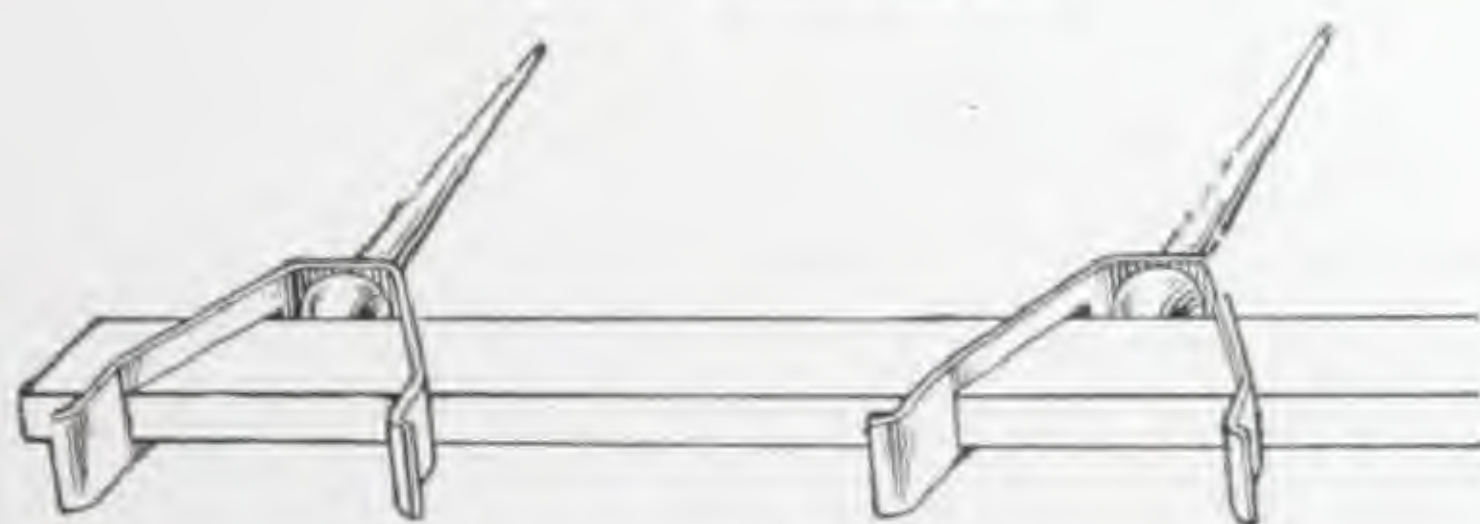


No. B-0790

EACH

No. B-0790—BEAM COMPASSES, with two steel points, pen,  
pencil socket, and needle point.....\$2.60

## Steel Trammels



No. B-0794

EACH

No. B-0792—TRAMMELS, nickel plated, with pencil socket. . . . \$1.35

No. B-0793—TRAMMELS, blue finish, with pencil socket. . . . . 1.00

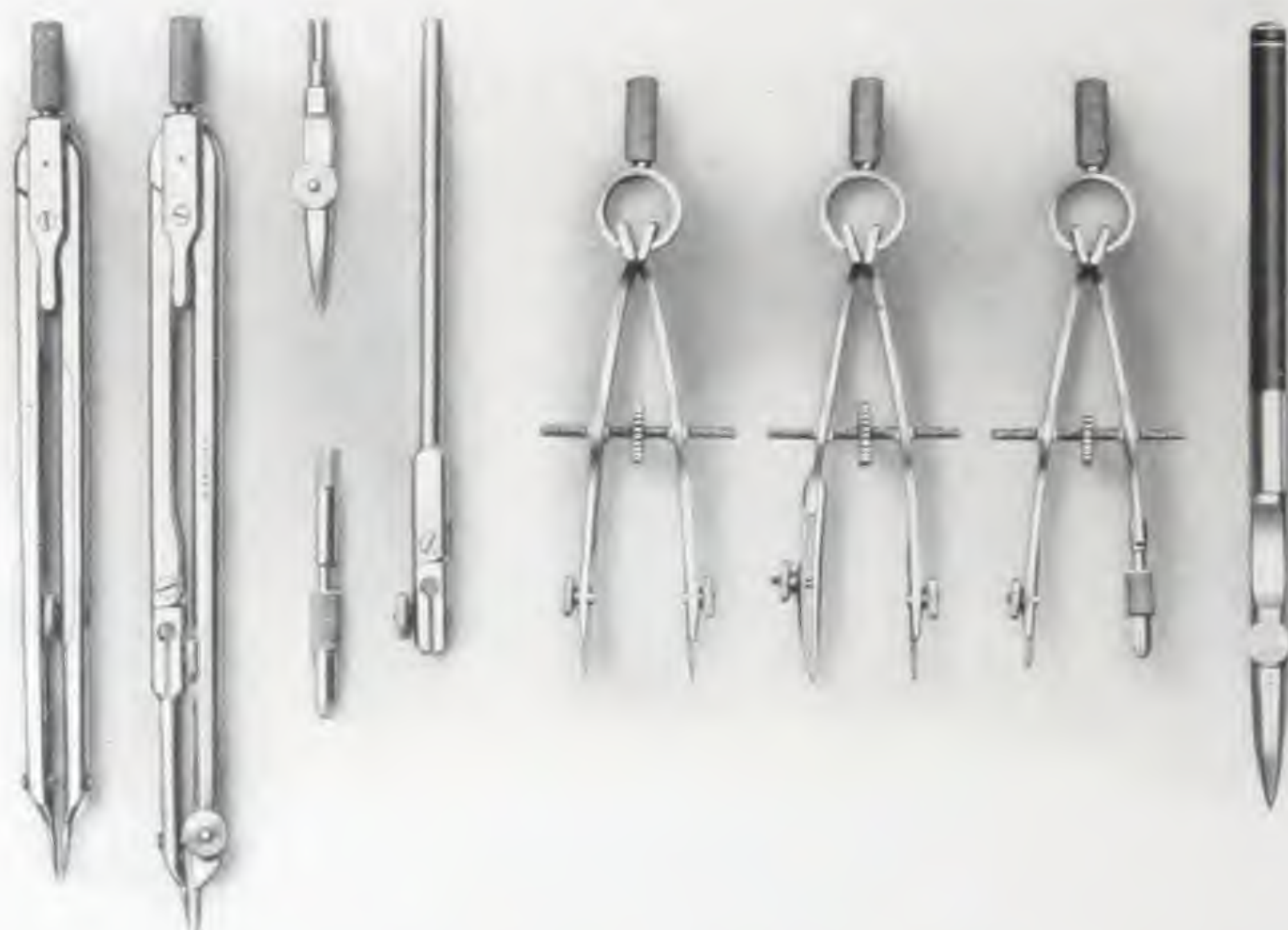
No. B-0794—TRAMMELS, nickel plated, shorter points. . . . . .75



## Peerless Drawing Instruments

(Made in U. S. A.)

Finest German Silver and Tool Steel



No. B-0711	No. B-0712	No. B-0713A	No. B-0713C	No. B-0713B	No. B-0714
					EACH
No. B-0710—PLAIN DIVIDER, 5¼ in.					\$2.50
No. B-0711—HAIRSPRING DIVIDER, 5¼ in.					3.25
No. B-0712—COMPASSES, 6½ in., with fixed Needle Point, Pen, Pencil Point and Lengthening Bar.					6.50
No. B-0713A—SPRING BOW DIVIDER, 3¼ in., with Central Screw, German Silver Handle.					1.50
No. B-0713B—SPRING BOW PENCIL, 3¼ in., Spring Blade, Central Screw with Needle Point, German Silver Handle.					2.10
No. B-0713C—SPRING BOW PEN, 3¼ in., Central Screw with Needle Point, German Silver Handle.					2.10
No. B-0714—DRAWING PEN, 4½ in., upper blade with spring.					1.00
No. B-0716—DRAWING PEN, 5½ in., upper blade with spring.					1.20
No. B-0717—GERMAN SILVER LEAD BOX, screw cap, containing 6 leads.					.25

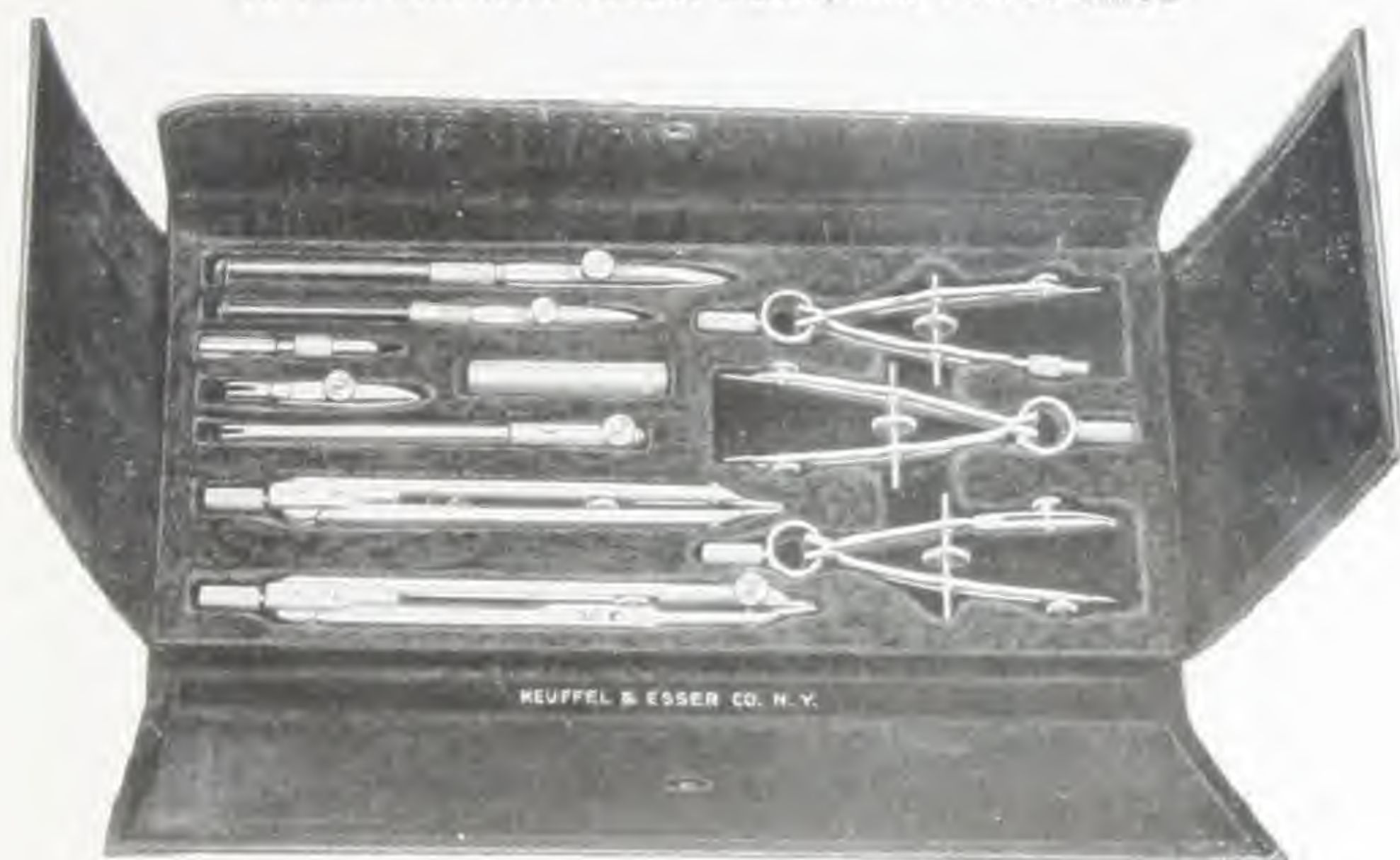


## Peerless Drawing Instruments—Continued

(Made in U. S. A.)

Finest German Silver and Tool Steel

In Fine Morocco Pocket Cases, Silk Velvet Lined



No. B-0726

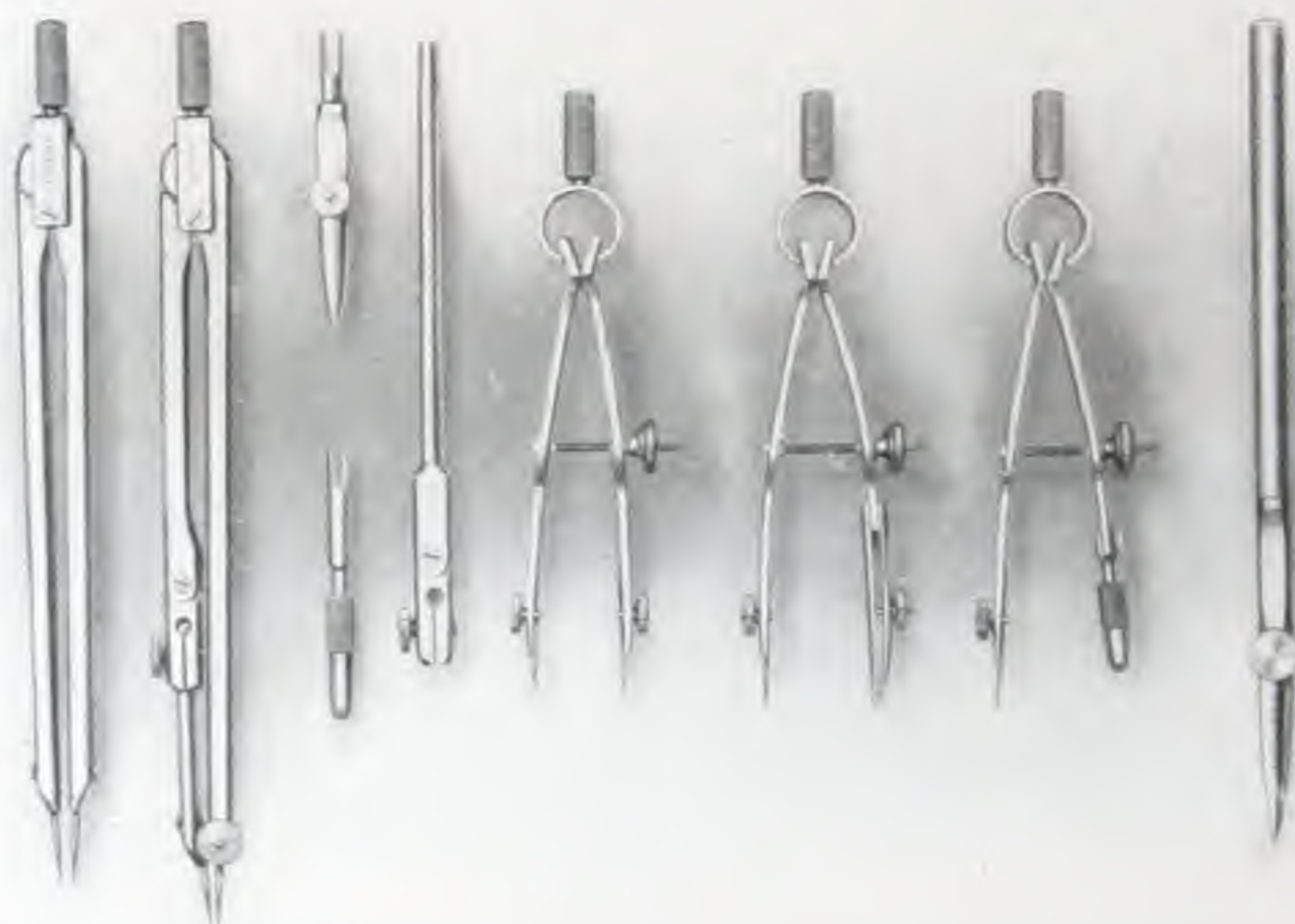
- |   |                 |
|---|-----------------|
| No. B-0720—POCKET CASE, containing: Compasses, 6½ in., with fixed Needle Point, Pen, Pencil Point and Lengthening Bar; Drawing Pen, 5½ in., upper blade with spring; Lead Box containing 6 leads.   | EACH<br>\$11.25 |
| No. B-0721—POCKET CASE, containing the same assortment as No. B-0720, but with the addition of Plain Divider.   | 13.75           |
| No. B-0722—POCKET CASE, containing the same assortment as No. B-0720, but with Plain Divider and Steelspring Bow Pen.   | 16.00           |
| No. B-0723—POCKET CASE, containing the same assortment as No. B-0720, but with the addition of Plain Divider, Spring Bow Pen, and Steelspring Bow Pencil.   | 18.25           |
| No. B-0724—POCKET CASE, containing the same assortment as No. B-0720, but with the addition of Plain Divider, Spring Bow Pen and Pencil, Drawing Pen.   | 19.25           |
| No. B-0725—POCKET CASE, containing the same assortment as No. B-0724, but with the addition of Spring Bow Divider, and without Drawing Pen.   | 19.75           |
| No. B-0726—POCKET CASE (as illustrated above), containing: Compasses, 6½ in., with fixed Needle Point, Pen, Pencil Point and Lengthening Bar; Hairspring Divider, 5¾ in.; Spring Bow Divider, 3¾ in.; Bow Pen, Bow Pencil, Drawing Pens, upper blades with spring, 4½ in., and 5½ in.; Lead Box containing 6 leads. | 21.50           |



# Nonpareil Drawing Instruments

(Made in U. S. A.)

Finest German Silver and Tool Steel.



No. B-0730 No. B-0731 No. B-0732A No. B-0732C No. B-0732B No. B-0733

	EACH
No. B-0730—PLAIN DIVIDER, 5¾ in. ....	\$1.90
No. B-0731—COMPASSES, 6½ in., with fixed Needle Point, Pen, Pencil Point and Lengthening Bar. ....	4.75
No. B-0732A—SPRING BOW DIVIDER, 3¾ in., German Silver Handle ..	1.25
No. B-0732B—SPRING BOW PENCIL, 3¾ in., Spring Blade, with Needle Point, German Silver Handle .....	1.75
No. B-0732C—SPRING BOW PEN, 3¾ in., with Needle Point, German Silver Handle .....	1.75
No. B-0733—DRAWING PEN, 4½ in., upper blade with spring .....	.95
No. B-0733a—DRAWING PEN, 5½ in., upper blade with spring .....	1.10
No. B-0734—LEAD BOX, containing 3 leads. ....	.10



## Nonpareil Drawing Instruments—Continued

(Made in U. S. A.)

Finest German Silver and Tool Steel.



No. B-0741

- |   | EACH    |
|---|---------|
| No. B-0735—POCKET CASE, containing: Compasses, $6\frac{1}{2}$ in., with fixed Needle Point, Pen, Pencil Point and Lengthening Bar; Drawing Pen, $5\frac{1}{2}$ in., upper blade with spring; Lead Box containing 3 leads.....   | \$ 8.20 |
| No. B-0736—POCKET CASE, containing same assortment as No. B-0735, but with Plain Divider.....   | 10.10   |
| No. B-0737—POCKET CASE, containing same assortment as No. B-0735, but with Plain Divider and Spring Bow Pen.....  | 12.00   |
| No. B-0738—POCKET CASE, containing same assortment as No. B-0735, but with Plain Divider, Steelspring Bow Pen, and Spring Bow Pencil.....   | 13.75   |
| No. B-0739—POCKET CASE, containing same assortment as No. B-0735, but with Plain Divider, Spring Bow Pen and Pencil, and Drawing Pen.....   | 14.70   |
| No. B-0740—POCKET CASE, containing same assortment as No. B-0735, but with Plain Divider, Spring Bow Divider, Bow Pen, and Bow Pencil.....  | 15.00   |
| No. B-0741—POCKET CASE (as illustrated above), containing: Compasses, $6\frac{1}{2}$ in., with fixed Needle Point, Pen, Pencil Point and Lengthening Bar; Plain Divider, $5\frac{3}{4}$ in.; Spring Bow Divider, $3\frac{3}{4}$ in.; Bow Pen; Bow Pencil; Drawing Pens, upper blades with spring, $4\frac{1}{2}$ in. and $5\frac{1}{2}$ in.; Lead Box containing 3 leads..... | 16.00   |



## Payzant Lettering Pens

With Ink Reservoir



The Payzant Lettering Pens are particularly adapted for lettering Engineers' and Architects' drawings and for use of Merchants in writing price tags, show cards, etc.

The usual method of forming heavy letters with a fine pen is slow and tedious work and but few draftsmen are capable of executing neat lettering with reasonable rapidity. Therefore the Payzant Lettering Pens supply a long felt want at the drafting table, as the letters are completely formed in a single stroke in one-quarter of the time needed for outlining and filling in each letter with a fine pen.

For border lines or any heavy line work they are far superior to the usual ruling pen, as 25 to 30 feet can easily be ruled without re-filling the reservoir. There are no delicate parts to get out of order and with ordinary care a set of these pens will last a lifetime.

### Brass

No. B-0997—PAYZANT LETTERING PENS, Nos. 1 to 6...	EACH \$1.00
No. B-0997—PAYZANT LETTERING PENS, Nos. 0 to 000...	1.25

### German Silver

No. B-0998—PAYZANT LETTERING PENS, Nos. 1 to 6...	EACH \$1.35
---	-------------





On the following pages we list a  
complete line of

**SCALES**

**TRIANGLES**

**STRAIGHTEDGES**

**T SQUARES**

**A**LL our goods are made with the  
greatest care from thoroughly sea-  
soned materials, finished carefully and  
warranted accurate.

**BOXWOOD AND WHITE EDGE  
SCALES**

Our scales are made from the finest Box-  
wood, thoroughly seasoned, and divided  
and finished with the greatest accuracy.  
Although we list and carry in stock a  
very complete line, we are prepared to  
quote on

**SPECIAL SCALES TO ORDER**

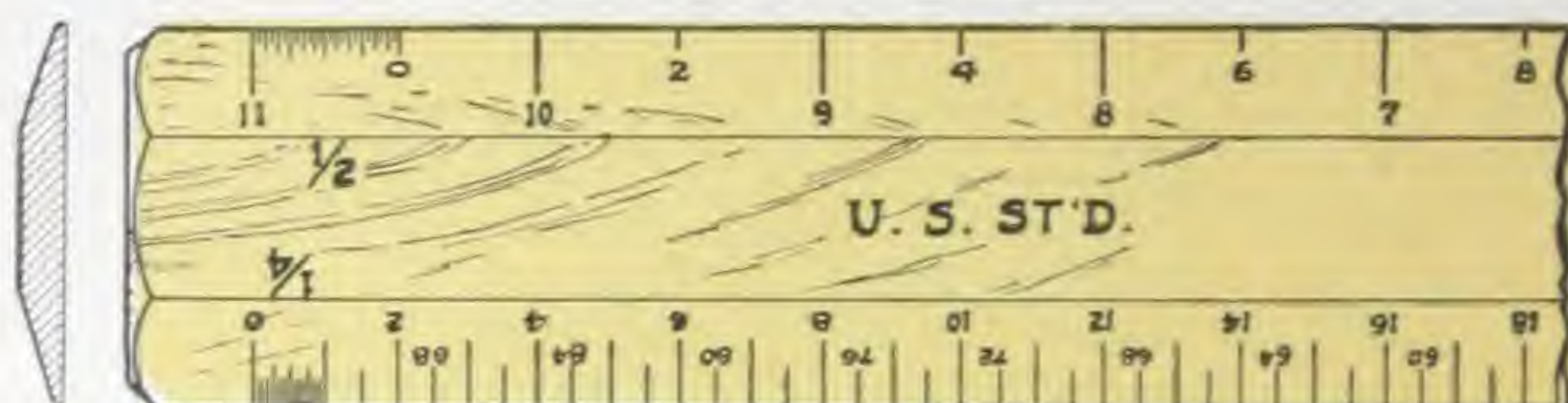
To avoid delay and errors, it is always  
best to submit a sketch showing divisions  
desired. This need not be drawn accu-  
rately but must show value of units and  
indicate divisions and numbering.

We invite your correspondence and will  
gladly submit estimates of the cost of  
making special scales.



# Boxwood Scales

## Flat—U. S. Standard



No. B-01003

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 inch to the foot.

	EACH
No. B-01001—BOXWOOD SCALE, flat, 6 inch.....	\$0.45
No. B-01003—BOXWOOD SCALE, flat, 12 inch.....	.70
No. B-01005—BOXWOOD SCALE, flat, 12½ inch.....	.80
No. B-01007—BOXWOOD SCALE, flat, 18 inch.....	1.35
No. B-01009—BOXWOOD SCALE, flat, 24 inch.....	1.75

Divided:  $\frac{3}{8}$ ,  $\frac{3}{4}$ , 1½, 3 inches to the foot.

	EACH
No. B-01011—BOXWOOD SCALE, flat, 6 inch.....	\$0.45
No. B-01013—BOXWOOD SCALE, flat, 12 inch.....	.70
No. B-01015—BOXWOOD SCALE, flat, 18 inch.....	1.35
No. B-01017—BOXWOOD SCALE, flat, 24 inch.....	1.75

## Flat Boxwood Scales, Beveled on Both Sides



No. B-01026

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1x $\frac{3}{8}$ ,  $\frac{3}{4}$ , 1½, 3 inches to the foot.

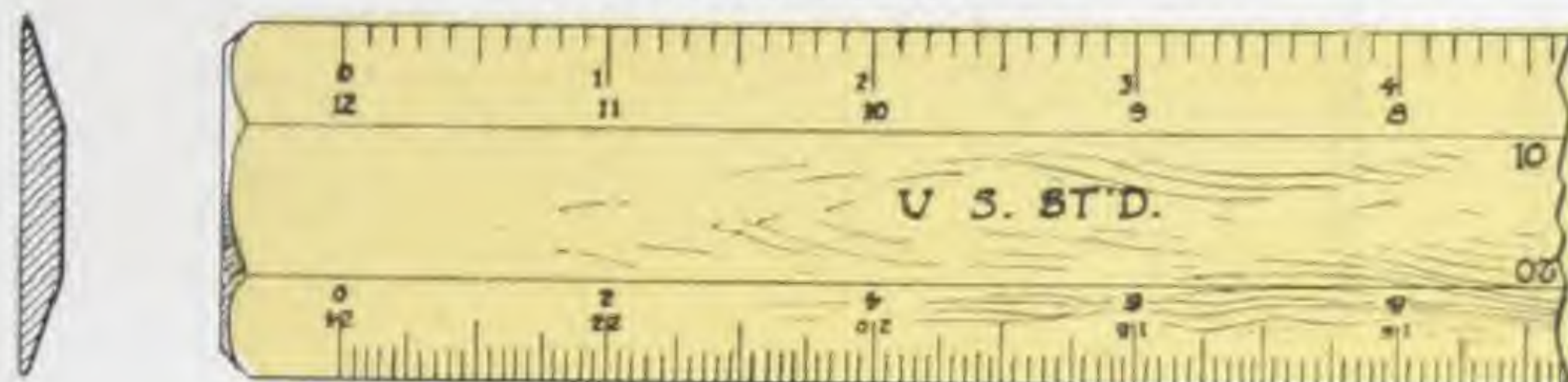
	EACH
No. B-01025—BOXWOOD SCALE, flat, 6 inch, both sides beveled.....	\$0.80
No. B-01026—BOXWOOD SCALE, flat, 12 inch, both sides beveled.....	1.10
No. B-01028—BOXWOOD SCALE, flat, 18 inch, both sides beveled.....	2.15
No. B-01029—BOXWOOD SCALE, flat, 24 inch, both sides beveled.....	2.90



## Boxwood Scales—Continued

Flat—U. S. Standard

Chain Scales

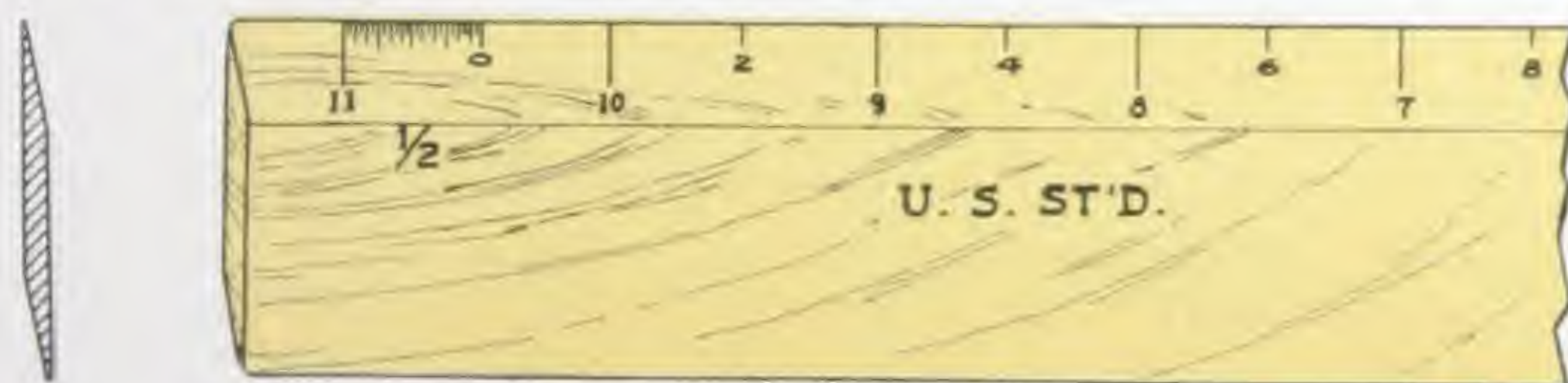


No. B-01041

	EACH
No. B-01030—BOXWOOD SCALE, flat, 6 inch, 10x 20 parts to the inch..	\$0.45
No. B-01031—BOXWOOD SCALE, flat, 6 inch, 10x 50 parts to the inch..	.45
No. B-01033—BOXWOOD SCALE, flat, 6 inch, 20x 40 parts to the inch..	.45
No. B-01035—BOXWOOD SCALE, flat, 6 inch, 30x 60 parts to the inch..	.45
No. B-01036—BOXWOOD SCALE, flat, 6 inch, 40x 80 parts to the inch..	.75
No. B-01037—BOXWOOD SCALE, flat, 6 inch, 50x 100 parts to the inch..	.75
No. B-01038—BOXWOOD SCALE, flat, 6 inch, 80x 100 parts to the inch..	.75
No. B-01040—BOXWOOD SCALE, flat, 12 inch, 10x 20 parts to the inch..	.70
No. B-01041—BOXWOOD SCALE, flat, 12 inch, 10x 50 parts to the inch..	.70
No. B-01043—BOXWOOD SCALE, flat, 12 inch, 20x 40 parts to the inch..	.70
No. B-01045—BOXWOOD SCALE, flat, 12 inch, 30x 60 parts to the inch..	.70
No. B-01046—BOXWOOD SCALE, flat, 12 inch, 40x 80 parts to the inch..	1.10
No. B-01047—BOXWOOD SCALE, flat, 12 inch, 50x 100 parts to the inch..	1.10
No. B-01048—BOXWOOD SCALE, flat, 12 inch, 80x 100 parts to the inch..	1.10

## Opposite Bevel Boxwood Scales

The Opposite Bevel Scales are an improvement over the ordinary flat shape, as they can be picked up more readily, and present only one graduated bevel to the eye when in use.



No. B-01063

Divided:  $\frac{3}{8}$ ,  $\frac{1}{4} \times \frac{1}{2}$ , 1 inch to the foot.

	EACH
No. B-01061—BOXWOOD SCALE, opposite bevel, 6 inch.....	\$0.45
No. B-01063—BOXWOOD SCALE, opposite bevel, 12 inch.....	.70

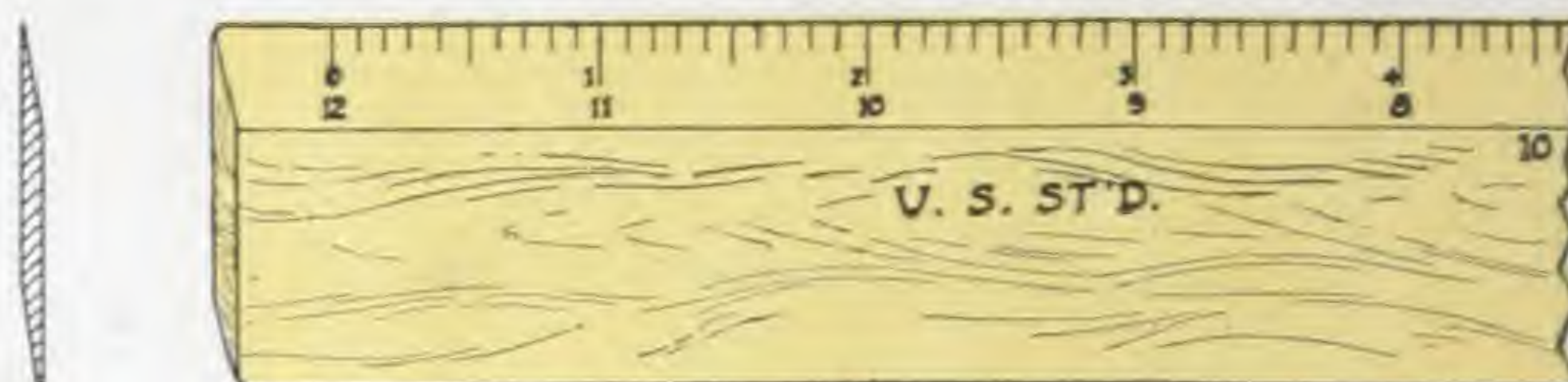
Divided:  $\frac{3}{8}$ ,  $\frac{3}{4} \times 1\frac{1}{2}$ , 3 inches to the foot.

	EACH
No. B-01067—BOXWOOD SCALE, opposite bevel, 6 inch.....	\$0.45
No. B-01069—BOXWOOD SCALE, opposite bevel, 12 inch.....	.70



## Boxwood Scales—Continued

### Opposite Bevel Chain Scales



No. B-01073

Divided: 10x50 parts to the inch.

	EACH
No. B-01071—BOXWOOD CHAIN SCALE, opposite bevel, 6 inch.....	\$0.45
No. B-01073—BOXWOOD CHAIN SCALE, opposite bevel, 12 inch.....	.70

## White Edge Scales

### Flat—U. S. Standard



No. B-01102

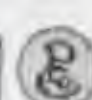
Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 inch to the foot.

	EACH
No. B-01100—WHITE EDGE SCALE, flat, 6 inch.....	\$0.70
No. B-01102—WHITE EDGE SCALE, flat, 12 inch.....	1.15
No. B-01104—WHITE EDGE SCALE, flat, 12½ inch.....	1.25
No. B-01106—WHITE EDGE SCALE, flat, 18 inch.....	2.10
No. B-01108—WHITE EDGE SCALE, flat, 24 inch.....	2.75

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ , 1½, 3 inches to the foot.

	EACH
No. B-01110—WHITE EDGE SCALE, flat, 6 inch.....	\$0.70
No. B-01112—WHITE EDGE SCALE, flat, 12 inch.....	1.15
No. B-01114—WHITE EDGE SCALE, flat, 18 inch.....	2.10
No. B-01116—WHITE EDGE SCALE, flat, 24 inch.....	2.75





## White Edge Chain Scales

Flat—U. S. Standard



No. B-01131

						EACH
No. B-01118	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 10x 20 parts to the inch..		\$0.70
No. B-01120	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 10x 50 parts to the inch..		.70
No. B-01124	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 20x 40 parts to the inch..		.70
No. B-01125	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 30x 60 parts to the inch..		.70
No. B-01126	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 40x 80 parts to the inch..		1.15
No. B-01127	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 50x100 parts to the inch..		1.15
No. B-01128	WHITE	EDGE	CHAIN	SCALE, flat, 6 inch, 80x100 parts to the inch..		1.15
No. B-01130	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 10x 20 parts to the inch..		1.15
No. B-01131	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 10x 50 parts to the inch..		1.15
No. B-01132	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 20x 40 parts to the inch..		1.15
No. B-01134	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 30x 60 parts to the inch..		1.15
No. B-01136	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 40x 80 parts to the inch..		1.50
No. B-01137	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 50x100 parts to the inch..		1.50
No. B-01138	WHITE	EDGE	CHAIN	SCALE, flat, 12 inch, 80x100 parts to the inch..		1.50

## Double Bevel White Edge Scales

$\frac{3}{4}$  inch Wide, in Leather Sheath



No. B-01140

						EACH
No. B-01140	WHITE	EDGE	SCALE, flat, 6 inch, both sides beveled and divided, $\frac{3}{8}$ , $\frac{1}{4}$ , $\frac{3}{16}$ , $1 \times \frac{3}{16}$ , $\frac{3}{4}$ , $1 \frac{1}{2}$ , 3 inches to the foot..			\$1.35
No. B-01142	WHITE	EDGE	SCALE, flat, 6 inch, both sides beveled and divided, 10, 30, 40, 50 parts to the inch..			1.35



No. B-01152

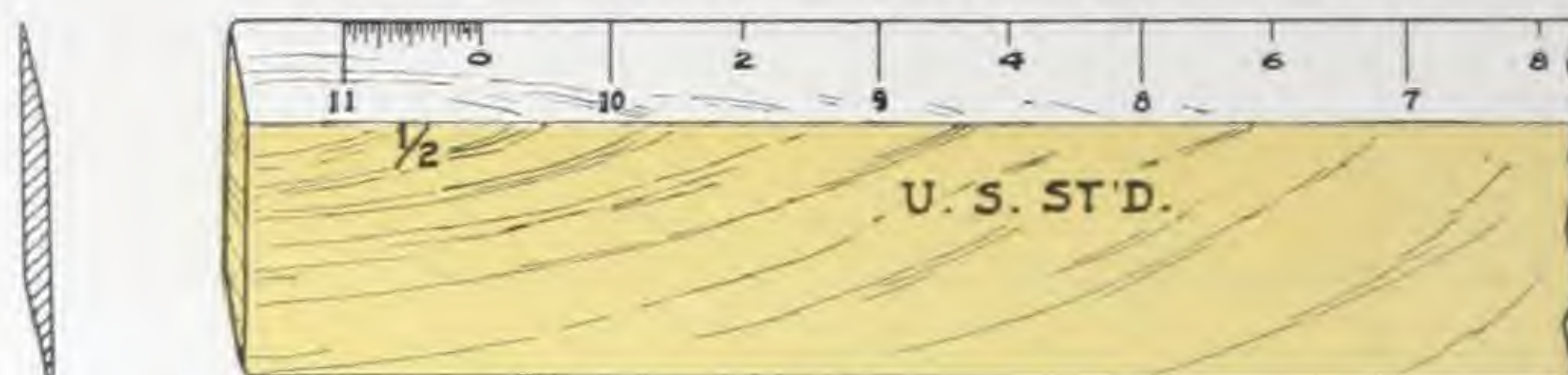
Divided:  $\frac{3}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{16}$ ,  $1 \times \frac{3}{16}$ ,  $\frac{3}{4}$ ,  $1 \frac{1}{2}$ , 3 inches to the foot.

						EACH
No. B-01150	WHITE	EDGE	SCALE, flat, 6 inch, both sides beveled..			\$1.35
No. B-01152	WHITE	EDGE	SCALE, flat, 12 inch, both sides beveled..			2.00
No. B-01154	WHITE	EDGE	SCALE, flat, 18 inch, both sides beveled..			3.40
No. B-01156	WHITE	EDGE	SCALE, flat, 24 inch, both sides beveled..			4.60



## White Edge Scales—Continued

### Opposite Bevel White Edge Scales—Flat



No. B-01162

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4} \times \frac{1}{2}$ , 1 inch to the foot.

No. B-01160—WHITE EDGE SCALE, 6 inch, opposite bevel.....	EACH \$0.70
No. B-01162—WHITE EDGE SCALE, 12 inch, opposite bevel.....	1.15
Divided: $\frac{1}{8}$ , $\frac{3}{4} \times 1\frac{1}{2}$ , 3 inches to the foot.	
No. B-01166—WHITE EDGE SCALE, 6 inch, opposite bevel.....	\$0.70
No. B-01168—WHITE EDGE SCALE, 12 inch, opposite bevel.....	1.15

### Opposite Bevel Chain Scales



No. B-01172

Divided: 10x50 parts to the inch.

No. B-01170—WHITE EDGE CHAIN SCALE, opposite bevel, 6 inch....	EACH \$0.70
No. B-01172—WHITE EDGE CHAIN SCALE, opposite bevel, 12 inch....	1.15

### Flat—U. S. Standard

Various Graduations

No. B-01180—WHITE EDGE SCALE, flat, 12 inch, divided $\frac{1}{2} \times 1$ inch to the foot .....	\$1.15
No. B-01182—WHITE EDGE SCALE, flat, 12 inch, divided $\frac{1}{4} \times \frac{3}{8}$ inch to the foot .....	1.15
No. B-01184—WHITE EDGE SCALE, flat, 12 inch, divided $\frac{1}{16} \times \frac{1}{4}$ , $\frac{3}{8}$ inch to the foot.....	1.15
No. B-01188—WHITE EDGE SCALE, flat, 12 inch, divided $\frac{1}{8}$ , $\frac{1}{4} \times \frac{3}{8}$ , $\frac{3}{4}$ inch to the foot.....	1.15
No. B-01190—WHITE EDGE SCALE, flat, 12 inch, divided $\frac{1}{8}$ , $\frac{1}{4} \times \frac{3}{4}$ , $1\frac{1}{2}$ inch to the foot.....	1.15
No. B-01192—WHITE EDGE SCALE, flat, 12 inch, divided 16x32 parts to the inch .....	1.15
No. B-01194—WHITE EDGE SCALE, flat, 12 inch, divided full size and half size .....	1.15



## Boxwood Scales

Triangular—For Architects and Mechanical Engineers



No. B-01213

Divided:  $\frac{3}{32}$ ,  $\frac{3}{16}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 3 inches to the foot.

	EACH
No. B-01211—BOXWOOD SCALE, triangular, 6 inch.....	\$0.50
No. B-01213—BOXWOOD SCALE, triangular, 12 inch.....	.60
No. B-01215—BOXWOOD SCALE, triangular, 18 inch.....	2.25
No. B-01217—BOXWOOD SCALE, triangular, 24 inch.....	4.00

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 2, 3, 4 inches to the foot.

	EACH
No. B-01225—BOXWOOD SCALE, triangular, 12 inch.....	\$0.60
No. B-01227—BOXWOOD SCALE, triangular, 18 inch.....	2.25
No. B-01229—BOXWOOD SCALE, triangular, 24 inch.....	4.00

## Improved Concave Shape



No. B-01233

Divided:  $\frac{3}{32}$ ,  $\frac{3}{16}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 3 inches to the foot.

	EACH
No. B-01231—BOXWOOD SCALE, triangular, 6 inch.....	\$0.60
No. B-01233—BOXWOOD SCALE, triangular, 12 inch.....	1.00
No. B-01235—BOXWOOD SCALE, triangular, 18 inch.....	2.50
No. B-01237—BOXWOOD SCALE, triangular, 24 inch.....	4.50

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 2, 3, 4 inches to the foot.

	EACH
No. B-01243—BOXWOOD SCALE, triangular, 12 inch.....	\$1.00
No. B-01245—BOXWOOD SCALE, triangular, 18 inch.....	2.50
No. B-01247—BOXWOOD SCALE, triangular, 24 inch.....	4.50



## Boxwood Scales—Continued

### Triangular—For Civil Engineers and Surveyors



No. B-01253

Divided: 10, 20, 30, 40, 50, 60 parts to the inch.

	EACH
No. B-01251—BOXWOOD CHAIN SCALE, triangular, 6 in..	\$0.50
No. B-01253—BOXWOOD CHAIN SCALE, triangular, 12 in..	.60
No. B-01255—BOXWOOD CHAIN SCALE, triangular, 18 in..	2.25
No. B-01257—BOXWOOD CHAIN SCALE, triangular, 24 in..	4.00

Divided: 20, 30, 40, 50, 60, 80 parts to the inch.

	EACH
No. B-01263—BOXWOOD CHAIN SCALE, triangular, 12 in..	\$0.90
No. B-01265—BOXWOOD CHAIN SCALE, triangular, 18 in..	2.25
No. B-01267—BOXWOOD CHAIN SCALE, triangular, 24 in..	4.00

### Improved Concave Shape



No. B-01273

Divided: 10, 20, 30, 40, 50, 60 parts to the inch.

	EACH
No. B-01271—BOXWOOD CHAIN SCALE, triangular, 6 in..	\$0.60
No. B-01273—BOXWOOD CHAIN SCALE, triangular, 12 in..	1.00
No. B-01275—BOXWOOD CHAIN SCALE, triangular, 18 in..	2.50
No. B-01277—BOXWOOD CHAIN SCALE, triangular, 24 in..	4.50

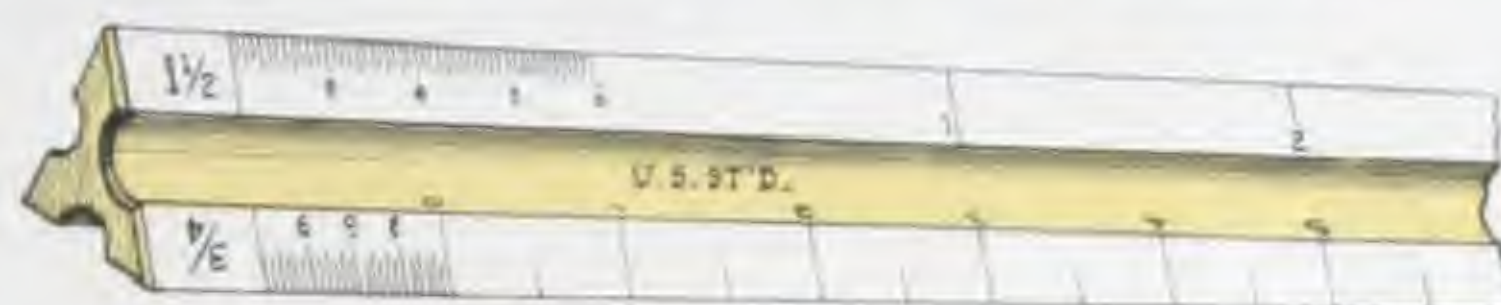
Divided: 20, 30, 40, 50, 60, 80 parts to the inch.

	EACH
No. B-01283—BOXWOOD CHAIN SCALE, triangular, 12 in..	\$1.00
No. B-01285—BOXWOOD CHAIN SCALE, triangular, 18 in..	2.50
No. B-01287—BOXWOOD CHAIN SCALE, triangular, 24 in..	4.50



## White Edge Scales

Triangular—For Architects and Mechanical Engineers



No. B-01303

Divided:  $\frac{3}{32}$ ,  $\frac{3}{16}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 3 inches to the foot.

EACH

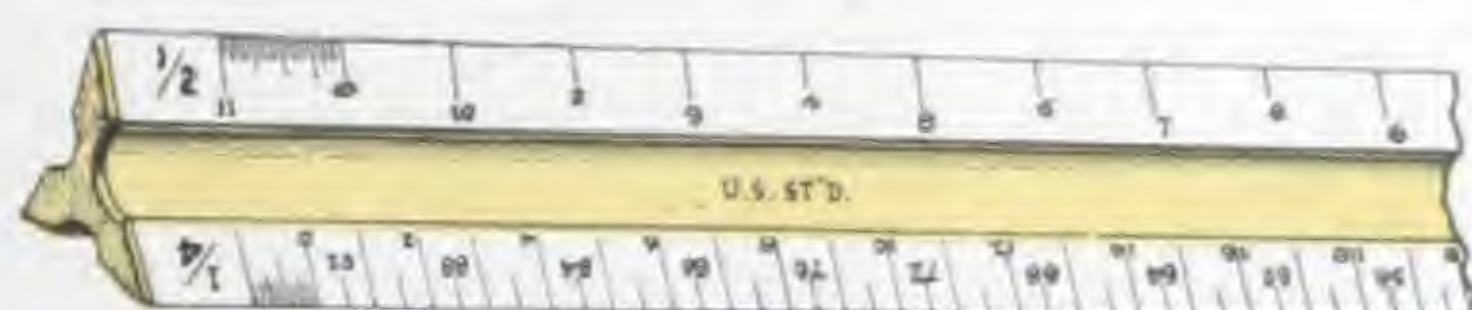
No. B-01301—WHITE EDGE SCALE, triangular, 6 inch...	\$1.40
No. B-01303—WHITE EDGE SCALE, triangular, 12 inch...	2.00
No. B-01305—WHITE EDGE SCALE, triangular, 18 inch...	4.00
No. B-01307—WHITE EDGE SCALE, triangular, 24 inch...	6.00

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 2, 3, 4 inches to the foot.

EACH

No. B-01313—WHITE EDGE SCALE, triangular, 12 inch...	\$2.00
No. B-01315—WHITE EDGE SCALE, triangular, 18 inch...	4.00
No. B-01317—WHITE EDGE SCALE, triangular, 24 inch...	6.00

## Improved Concave Shape



No. B-01323

Divided:  $\frac{3}{32}$ ,  $\frac{3}{16}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 3 inches to the foot.

EACH

No. B-01321—WHITE EDGE SCALE, triangular, 6 inch...	\$1.50
No. B-01323—WHITE EDGE SCALE, triangular, 12 inch...	2.50
No. B-01325—WHITE EDGE SCALE, triangular, 18 inch...	4.50
No. B-01327—WHITE EDGE SCALE, triangular, 24 inch...	6.50

Divided:  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 2, 3, 4 inches to the foot.

EACH

No. B-01333—WHITE EDGE SCALE, triangular, 12 inch...	\$2.50
No. B-01335—WHITE EDGE SCALE, triangular, 18 inch...	4.50
No. B-01337—WHITE EDGE SCALE, triangular, 24 inch...	6.50



## White Edge Scales—Continued

### Triangular—For Civil Engineers and Surveyors



No. B-01343

Divided: 10, 20, 30, 40, 50, 60 parts to the inch.

	EACH
No. B-01341—WHITE EDGE CHAIN SCALE, triangular, 6 in.	\$1.40
No. B-01343—WHITE EDGE CHAIN SCALE, triangular, 12 in.	2.00
No. B-01345—WHITE EDGE CHAIN SCALE, triangular, 18 in.	4.00
No. B-01347—WHITE EDGE CHAIN SCALE, triangular, 24 in.	6.00
No. B-01349—WHITE EDGE CHAIN SCALE, triangular, 12 in., divided 20, 30, 40, 50, 60, 80 parts to the inch.	2.40
No. B-01351—WHITE EDGE CHAIN SCALE, triangular, 12 in., divided 100, 200, 300, 400, 500, 600 parts to the foot	2.40

### Improved Concave Shape



No. B-01363

Divided: 10, 20, 30, 40, 50, 60 parts to the inch.

	EACH
No. B-01361—WHITE EDGE CHAIN SCALE, triangular, 6 in.	\$1.50
No. B-01363—WHITE EDGE CHAIN SCALE, triangular, 12 in.	2.50
No. B-01365—WHITE EDGE CHAIN SCALE, triangular, 18 in.	4.50
No. B-01367—WHITE EDGE CHAIN SCALE, triangular, 24 in.	6.50
No. B-01369—WHITE EDGE CHAIN SCALE, triangular, 12 in., divided 20, 30, 40, 50, 60, 80 parts to the inch.	2.75
No. B-01371—WHITE EDGE CHAIN SCALE, triangular, 12 in., divided 100, 200, 300, 400, 500, 600 parts to the foot	2.75



### Triangular Metallic Scales



No. B-01380

EACH

- No. B-01380—METALLIC SCALE, 12 inch, divided  $\frac{3}{32}$ ,  $\frac{3}{16}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ , 1,  $1\frac{1}{2}$ , 3 inches to the foot, and one edge  $\frac{1}{8}$  to the inch... \$3.00
- No. B-01382—METALLIC SCALE, 12 inch, divided 10, 20, 30, 40, 50, 60 parts to the inch... 3.00

### Improved Shape



No. B-01384

- No. B-01384—METALLIC SCALE, 12 inch, with single graduation, alike on both sides. Each... \$1.50
- |                               |                                    |
|-------------------------------|------------------------------------|
| Style A—3 in.=1 foot.         | Style G— $\frac{1}{4}$ in.=1 foot. |
| B—2 in.=1 foot.               | H— $\frac{1}{8}$ in.=1 foot.       |
| C— $1\frac{1}{2}$ in.=1 foot. | J—20 parts to inch.                |
| D—1 in.=1 foot.               | K—40 parts to inch.                |
| E— $\frac{3}{4}$ in.=1 foot.  | L—50 parts to inch.                |
| F— $\frac{1}{2}$ in.=1 foot.  | M—60 parts to inch.                |
- No. B-01385—METALLIC SCALE, 12 inch, with separate graduations on each side. Each... \$1.50
- |   |  |
|---|--|
| Style N—3 in. and $1\frac{1}{2}$ in.=1 ft.        | Style R— $\frac{1}{4}$ in. and $\frac{1}{8}$ in.=1 ft. |
| O—1 in. and $\frac{1}{2}$ in.=1 ft.               | S—10 and 50 parts to inch.                             |
| P— $1\frac{1}{2}$ in. and $\frac{3}{4}$ in.=1 ft. | T—20 and 50 parts to inch.                             |
| Q— $\frac{1}{2}$ in. and $\frac{1}{4}$ in.=1 ft.  |  |

### Plotting Scales

EACH

- No. B-01390—PLOTING SCALE, Boxwood, 6 inch... \$0.20
- No. B-01392—PLOTING SCALE, Ivory, 6 inch... 1.50

### Bristol Board Scales

19 inches long,  $1\frac{3}{4}$  inches wide. Engine Divided.

- No. B-01401—Set of 6 scales, divided  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 3 inches to the foot. Per set... \$1.00
- No. B-01403—Set of 6 scales, divided  $\frac{3}{32}$ ,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  inch to the foot. Per set... 1.00
- No. B-01405—Set of 6 scales, divided 10, 20, 30, 40, 50, 60 parts to the inch. Per set... 1.00
- No. B-01407—Separate Scales, any of the above divisions. Each... .20

### Scale Guards



No. B-01411

- No. B-01411—SCALE GUARD, nickel plated. Each... \$0.15



# Pocket Folding Rules Extra Fine Quality—Yellow Finish



No. B-01433

Divided in continuous inches, with springs, brass tipped.

	EACH
No. B-01431—POCKET RULE, 2 feet, 4 fold, divided 1/16 in.	\$0.20
No. B-01432—POCKET RULE, 3 feet, 6 fold, divided 1/16 in.	.25
No. B-01433—POCKET RULE, 4 feet, 8 fold, divided 1/16 in.	.40
No. B-01434—POCKET RULE, 5 feet, 10 fold, divided 1/16 in.	.50
No. B-01435—POCKET RULE, 6 feet, 12 fold, divided 1/16 in.	.60
No. B-01436—POCKET RULE, 8 feet, 16 fold, divided 1/16 in.	.75

## Extra Fine Quality—White Enameled Finish



No. B-01453

Divided in continuous inches, with springs, brass tipped.

	EACH
No. B-01451—POCKET RULE, 2 feet, 4 fold, divided 1/16 in.	\$0.35
No. B-01452—POCKET RULE, 3 feet, 6 fold, divided 1/16 in.	.45
No. B-01453—POCKET RULE, 4 feet, 8 fold, divided 1/16 in.	.60
No. B-01454—POCKET RULE, 5 feet, 10 fold, divided 1/16 in.	.70
No. B-01455—POCKET RULE, 6 feet, 12 fold, divided 1/16 in.	.85
No. B-01456—POCKET RULE, 8 feet, 16 fold, divided 1/16 in.	1.00

Divided in inches one side, 1/10 and 1/100 to foot other side.

	EACH
No. B-01464—POCKET RULE, 4 feet, 8 fold.....	\$0.60
No. B-01466—POCKET RULE, 6 feet, 12 fold.....	.85



## Steel Folding Pocket Rules



No. B-01467

Flexible spring steel,  $\frac{3}{8}$  inch wide, raised figures, with stop that holds rule rigid when extended. Marked inches and 16ths on both sides.

EACH

No. B-01467—STEEL POCKET RULE, 2 feet long, in sheath.....	\$0.30
No. B-01468—STEEL POCKET RULE, 3 feet long, in sheath.....	.55
No. B-01469—STEEL POCKET RULE, 4 feet long, in sheath.....	.85

## Flat Steel Rules



No. B-01470

Made from flexible spring steel, marked in inches and 16ths.

EACH

No. B-01470—FLAT STEEL RULE, $\frac{1}{2}$ inch wide, 12 inches long.....	\$1.50
No. B-01471—FLAT STEEL RULE, $\frac{3}{4}$ inch wide, 18 inches long.....	2.40
No. B-01472—FLAT STEEL RULE, $\frac{3}{4}$ inch wide, 24 inches long.....	3.00

## Shrinkage Rules



No. B-01473

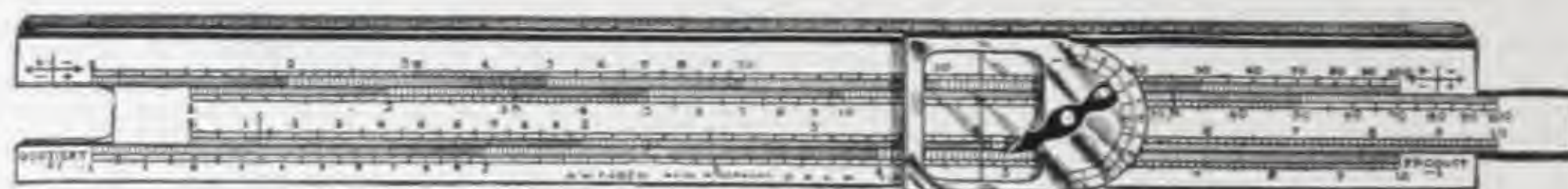
Made from highly finished boxwood,  $1\frac{1}{2} \times \frac{1}{8}$  in., brass capped.

EACH

No. B-01473—Extreme length $24\frac{1}{8}$ inches, shrinkage $\frac{1}{8}$ inch per foot.....	\$1.20
No. B-01474—Extreme length $24\frac{1}{4}$ inches, shrinkage $\frac{1}{8}$ inch per foot.....	1.20
No. B-01475—Extreme length $24\frac{1}{2}$ inches, shrinkage $\frac{1}{4}$ inch per foot.....	1.20
No. B-01476—Extreme length 25 inches, shrinkage $\frac{1}{2}$ inch per foot.....	1.20
No. B-01477—Extreme length $25\frac{1}{2}$ inches, shrinkage $\frac{3}{4}$ inch per foot.....	1.20



## A. W. Faber's Slide Rules



No. B-01490

No. B-01480—FABER'S SLIDE RULE, 6 inches, boxwood, celluloid facing, glass indicator, with book of instructions.....	EACH \$ 3.00
No. B-01482—FABER'S SCHOOL SLIDE RULE, 10¼ inches, made of boxwood, white facing on one side only, no tables on back, with instructions .....	3.00
No. B-01484—FABER'S SLIDE RULE, boxwood, 10¼ inches, glass indicator in box, with book of instructions.....	3.50
No. B-01486—FABER'S SLIDE RULE, same as No. B-01484, but with celluloid facing .....	3.50
No. B-01488—FABER'S SLIDE RULE, 10¼ inches, celluloid facing, self-adjusting slide, glass indicator, with book of instructions..	4.00
No. B-01490—FABER'S IMPROVED SLIDE RULE, 11 inches, boxwood, celluloid facing, without decimals, with self-adjusting slide and registering indicator, in box with book of instructions..	4.50
No. B-01492—FABER'S IMPROVED SLIDE RULE, same as No. B-01490, but 21 inches long, with book of instructions.....	12.00

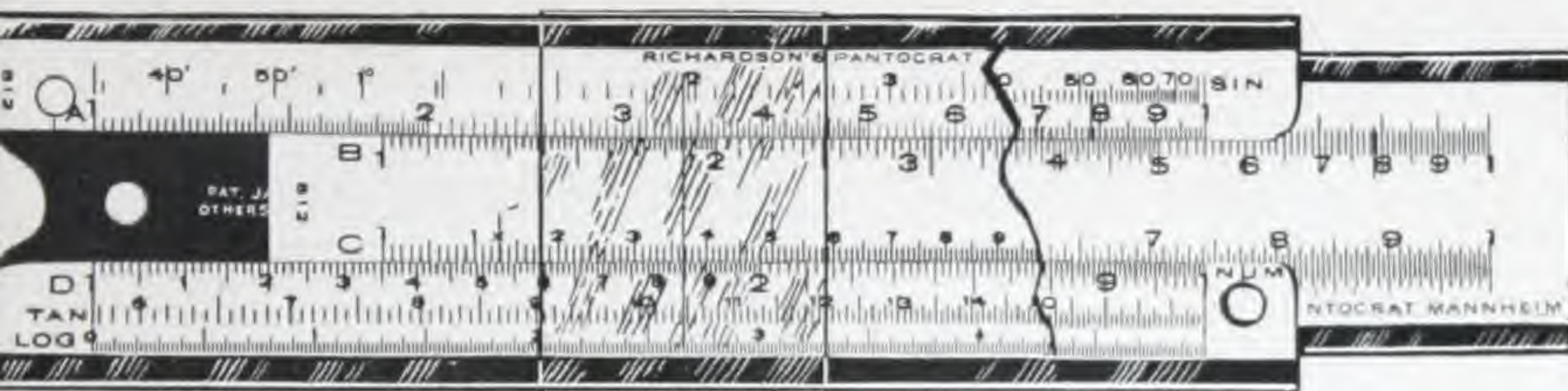
Improved Slide Rules Nos. B-01490 and B-01492 have a boxwood adjuster inserted into the body of the rule, parallel to the side, which acts upon the slide like a spring.

No. B-01494—FABER'S IMPROVED SLIDE RULE, 11 inches (Electric), boxwood, celluloid facing, without decimals, with self-adjusting slide and special indicator, in box with book of instructions .....	EACH \$ 5.00
No. B-01495—FABER'S SLIDE RULE, same as No. B-01494, but 5 inches in length, with book of instructions.....	3.00
No. B-01496—BOOK OF INSTRUCTIONS only.....	.50



## Slide Rules—Continued

### Richardson Slide Rules



No. B-01514

The Richardson Slide Rule is made entirely of metal and is not affected by either water or acids. No shrinkage and always absolutely accurate.

EACH

No. B-01514 —RICHARDSON'S PANTOCRAT MANNHEIM SLIDE RULE, 10 inch.....\$ 2.50

No. B-01515 —RICHARDSON'S PANTOCRAT MANNHEIM SLIDE RULE, 10 inch, with addition and subtraction scales..... 3.00

No. B-01516A—RICHARDSON'S POLYMETRIC SLIDE RULE, with CI scale for handling three factors by one setting of slide. 3.50

No. B-01516B—RICHARDSON'S BINARY POLYMETRIC SLIDE RULE, with CI scale for handling three factors with one setting, also an inverted scale, divided not decimally, but in halves, quarters, eighths, sixteenths, and with but one index mark located near the middle of the scale. This scale permits one to multiply or divide mixed numbers not greater than 10..... 4.00

No. B-01516C—RICHARDSON'S LOGOMETRIC (LOG LOG) SLIDE RULE, for handling fractional powers and roots, also natural or hyperbolic logarithms so frequently met with in electrical, mechanical and hydraulic formulas..... 4.00

Nos. B-01514 to B-01516C are furnished in cardboard case, with book of instructions, "The Slide Rule Simplified," 100 pages, 135 illustrations.

No. B-01516D—RICHARDSON'S BUSINESS MAN'S SLIDE RULE. Will give the amount of interest due on any principal, at any rate, for any period, especially designed for computing commercial problems, cost estimation, division of freight rates, wages by the month, day or week for any number hours at any rate per hour, unit-cost and selling price, string discounts off the list price, percentages, proportion, the rule of three, etc., with 20-page book especially written and illustrated with 24 cuts showing just how to set the rule for solving commercial problems..... 5.00



## Mannheim Slide Rules—Adjustable



No. B-01724

No. B-01720—ADJUSTABLE (MANNHEIM) SLIDE RULE, 5-inch, engine divided, divisions on white facings, with "Frameless" Glass Indicator, in sewed Leather Case, with directions .....\$ 5.00

This rule is subdivided as closely as the 10-inch rule, No. B-01724.

No. B-01722—ADJUSTABLE (MANNHEIM) SLIDE RULE, 8-inch, engine divided, divisions on white facings, with "Frameless" Glass Indicator, in sewed Leather Case, with directions ..... 5.50

This rule is subdivided as closely as the 10-inch rule, No. B-01724.

No. B-01724—ADJUSTABLE (MANNHEIM) SLIDE RULE, 10-inch, engine divided, divisions on white facings, with "Frameless" Glass Indicator, in Morocco Case, with directions ..... 5.00  
In sewed leather case..... 6.10

No. B-01726—ADJUSTABLE (MANNHEIM) SLIDE RULE, 16-inch, engine divided, divisions on white facings, with "Frameless" Glass Indicator, in Morocco Case, with directions ..... 12.00  
In sewed leather case..... 13.90

No. B-01728—ADJUSTABLE (MANNHEIM) SLIDE RULE, 20-inch, engine divided, divisions on white facings, with "Frameless" Glass Indicator, in Morocco Case, with directions ..... 14.00  
In sewed leather case..... 15.95

Rules B-01726 and B-01728 are divided more closely than the others. They have from 200 to 20 subdivisions between the prime numbers, while the other rules have from 100 to 10, so that reading is closer by at least one figure.

For Magnifiers and Books on the Slide Rule, see page 130.

For Leather Cases, see page 130.





## Polyphase Slide Rules

## Mannheim Type

Patented

The Polyphase Slide Rule has in addition to the regular scales of the Mannheim, a scale of cubes on the vertical edge of the rule and an *inverted* scale (CI) on the face of the slide, which scales may readily be used in conjunction with the other scales, by means of the indicator. This arrangement combines some of the features of the Duplex Rule with the regular Mannheim type.

EACH

No. B-01730—POLYPHASE SLIDE RULE, 8-inch,  
engine divided, divisions on white facings,  
"Frameless" Glass Indicator, in sewed  
Leather Case, with directions, . . . . . \$ 6.00

No. B-01732—POLYPHASE SLIDE RULE, 10-inch,  
engine divided, divisions on white facings,  
"Frameless" Glass Indicator, in Morocco  
Case, with directions, . . . . . 5.50  
In sewed leather case, . . . . . 6.60

No. B-01734—POLYPHASE SLIDE RULE, 20-inch,  
engine divided, divisions on white facings,  
"Frameless" Glass Indicator, in Morocco  
Case, with directions, . . . . . 15.00  
In sewed leather case, . . . . . 16.95



For Magnifiers and Books on the Slide Rule, see page 130.

No. B-01732



## Log Log Duplex Slide Rule

Patented



No. B-01740

	EACH
No. B-01740—LOG LOG DUPLEX SLIDE RULE, 10-inch, engine divided, divisions on white facings, "Frameless" Glass Indicator, in Morocco Case, with directions.....	\$8.50
In sewed leather case.....	9.60

The Log Log Duplex Slide Rule has, in addition to the scales of the regular Duplex slide rule, a Log Log scale, three fold, graduated from 1.01 to 22000, with which any root or power of any quantity up to 22000 may be determined by direct operation at one setting of the slide.

Exponentials generally and the many formulas in electrical and mechanical engineering involving fractional powers or roots, hyperbolic logarithms, etc., are readily handled with the help of this scale.

The hyperbolic or natural logarithm of a quantity with its characteristic may be read by means of the indicator without setting the slide, or may be used directly as a factor when required in any formula.

The scales are arranged as follows:

On the front face are the regular A, B, C and D scales, and a scale of sines, in the usual order.

On the reverse face there are, in the order named,

Log Log scale, in three parts,

The C scale,

The scale of tangents,

The CI scale (C Inverted),

The D scale,

The scale of equal parts.

By the arrangement of the C and CI scales on the slide with the scale of tangents between, the tangent or co-tangent of any angle from  $5^{\circ} 43'$  to  $84^{\circ} 17'$  can be read on the slide, or used as a factor if so required.

For Magnifiers and Books on the Slide Rule, see page 130.

For Leather Cases, see page 130.





## Polyphase Duplex Slide Rules



No. B-01752 (front) Fig. 1



No. B-01752 (back) Fig. 2

	EACH
No. B-01750—POLYPHASE DUPLEX SLIDE RULE, 8-inch, engine divided, divisions on white facings, "Frameless" Glass Indicator, in sewed Leather Case, with directions.....	\$ 8.00
No. B-01752—POLYPHASE DUPLEX SLIDE RULE, 10-inch, engine divided, divisions on white facings, "Frameless" Glass Indicator, in Morocco Case, with directions.....	7.50
In sewed leather case.....	8.60
No. B-01754—POLYPHASE DUPLEX SLIDE RULE, 20-inch, engine divided, divisions on white facings, "Frameless" Glass Indicator, in Morocco Case, with directions.....	19.00
In sewed leather case.....	20.95

The Polyphase Duplex Slide Rule is a combination of the Polyphase and the Duplex Rules, with the addition of several special scales. It is very valuable for the solution of problems involving exponentials, reciprocals and extended combinations of factors. Involved computations may be performed with a minimum number of settings, decreasing the possibility of error in reading, and reducing the time required to perform calculations. Any one of the scales may be read in connection with any other one by means of the indicator which encircles the rule.

In introducing the various changes and innovations enumerated, great care has been exercised to avoid complicating the rule, so that the Polyphase Duplex Rule can be used efficiently for the simpler problems of multiplication and division as well as for the more complicated operations encountered in the solution of various empirical formulas.

On one face (Fig. 1) are the following scales:

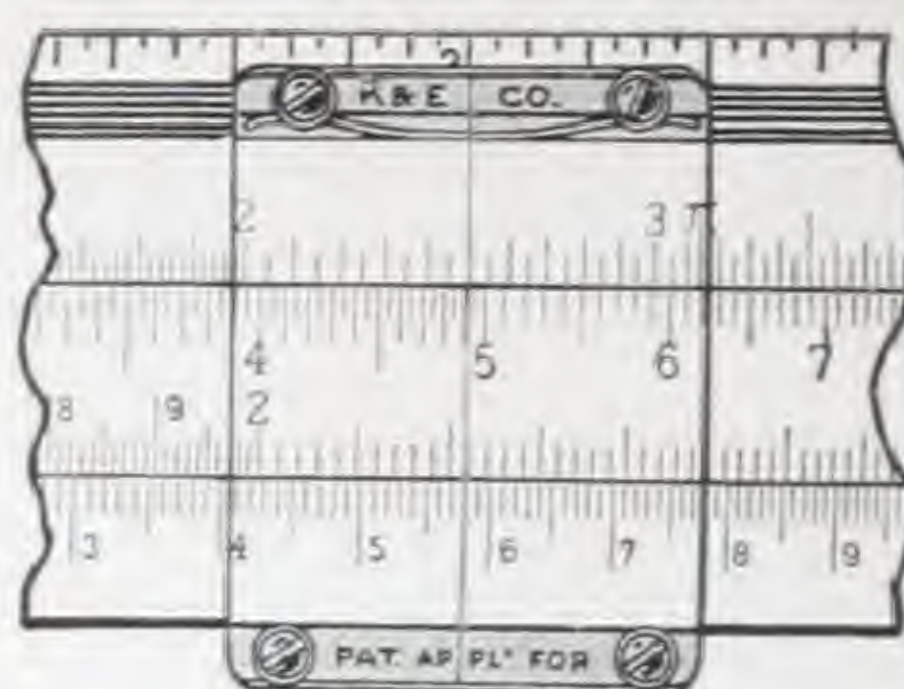
- CF, a full length C scale, folded. (The graduations begin and end approximately at the center of the rule, the scales being so placed as to bring the division 3.1416 in line with both indexes of the lower D scale.)
- DF, a full length D scale, folded like the CF scale.
- CIF, a full length inverted folded C scale on the center line of the slide.
- C, a full length regular C scale.
- D, a full length regular D scale.

On the other face of the rule (Fig. 2) are the following scales:

- K, a scale consisting of three complete logarithmic scales. (Used in connection with the D scale for cubes and cube roots.)
- A, two complete logarithmic scales (used in connection with the D scale for squares and square roots).
- S and T, the usual trigonometrical scales of sines and tangents.
- CI, a full length C scale inverted.
- D, a full length regular D scale.
- L, a scale of equal parts (for finding logarithms of numbers).



## Slide Rule Indicators



	EACH
No. B-01760—"FRAMELESS" GLASS INDICATORS, for Rules Nos. B-01720 to B-01724.....	\$0.60
No. B-01762—"FRAMELESS" GLASS INDICATORS, for Rules Nos. B-01726 and B-01728.....	.80
No. B-01764—"FRAMELESS" GLASS INDICATORS, for Rules Nos. B-01730 to B-01734.....	1.00
No. B-01766—"FRAMELESS" GLASS INDICATORS, for Rule No. B-01740.....	2.00
No. B-01768—"FRAMELESS" GLASS INDICATORS, for Rules Nos. B-01750 and B-01752.....	1.50
GLASS ONLY; FITTED	
No. B-01770—GLASS only, for Rules Nos. B-01720 to B-01724.....	\$0.30    \$0.40
No. B-01772—GLASS only, for Rules Nos. B-01726 and B-01728.....	.40    .50
No. B-01774—GLASS only, for Rules Nos. B-01730 to B-01734.....	.40    .50
No. B-01776—GLASS only, for Rule No. B-01740.....	.50    .70
No. B-01778—GLASS only, for Rules Nos. B-01750 and B-01752.....	.40    .60

## Magnifiers for Slide Rules

	EACH
No. B-01780—MAGNIFIERS, for Rules Nos. B-01720 to B-01734.....	\$2.00
No. B-01782—MAGNIFIERS, for Rule No. B-01740.....	2.50

## Books on Slide Rules

	EACH
No. B-01784—"THE SLIDE RULE," complete manual, by Wm. Cox.....	\$0.50

## Cases for Slide Rules

	EACH
No. B-01790—MOROCCO COVERED CASE, for 10 in. rule.....	\$0.40
No. B-01791—MOROCCO COVERED CASE, for 16 in. rule.....	.60
No. B-01792—MOROCCO COVERED CASE, for 20 in. rule.....	.80
No. B-01793—SEWED LEATHER CASE, for 5 in. rule.....	1.20
No. B-01794—SEWED LEATHER CASE, for 8 in. rule.....	1.40
No. B-01795—SEWED LEATHER CASE, for 10 in. rule.....	1.50
No. B-01796—SEWED LEATHER CASE, for 16 in. rule.....	2.50
No. B-01797—SEWED LEATHER CASE, for 20 in. rule.....	2.75
No. B-01798—SEWED LEATHER CASE, with space for Magnifier, 5 in.	2.25
No. B-01799—SEWED LEATHER CASE, with space for Magnifier, 10 in.	2.60



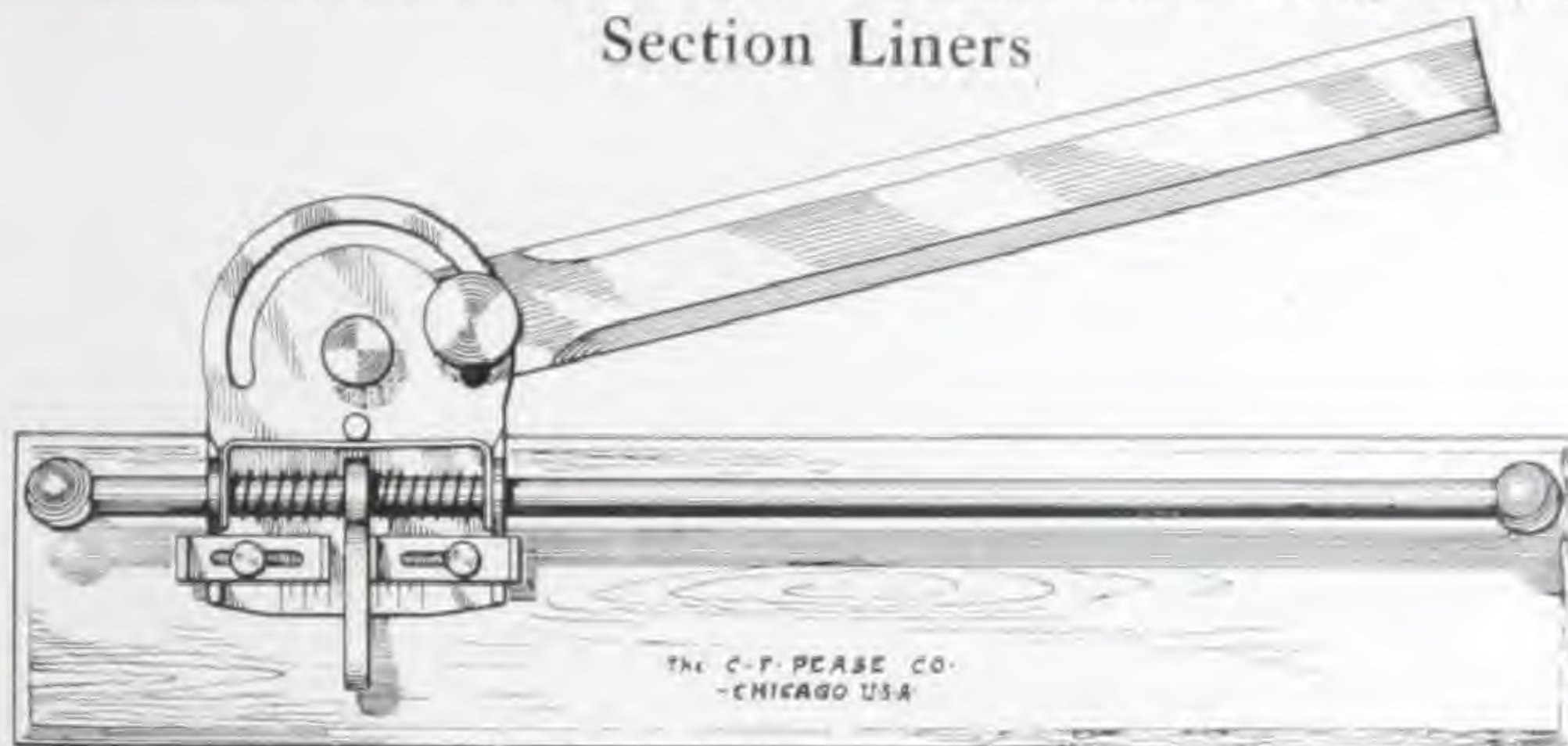
## Combination Pocket Rule



No. B-01830

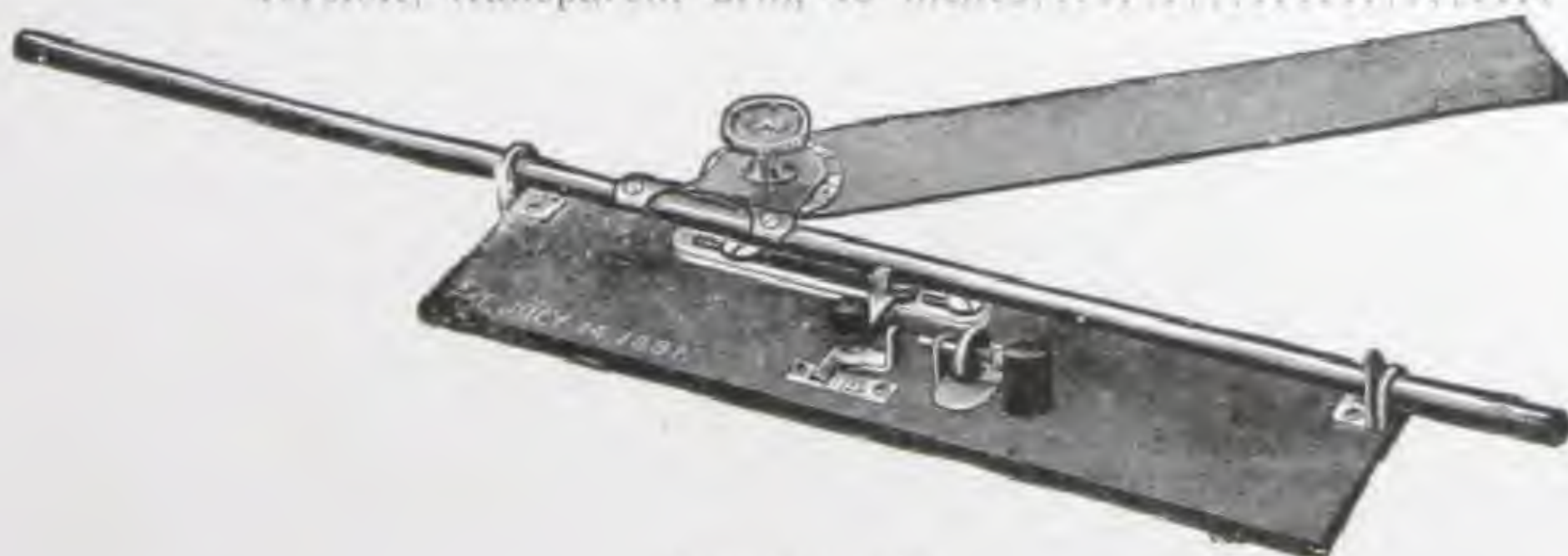
This rule is made of spring German silver, accurately and distinctly graduated; it can be used as a Caliper Gauge, Protractor, Triangle, or Tee Square. The upper edge and Caliper arm are graduated in thirty-seconds, and the lower edge in sixteenths; the Protractor is graduated to five degrees and the vernier reads to one-half degree. It is adjustable to any angle, and the center joint is so constructed that the rule remains firm wherever set. EACH  
No. B-01830—COMBINATION POCKET RULE, 1 fold, 6 in. long... \$1.50

## Section Liners



No. B-01833

No. B-01833—SECTION LINER, hardwood, nickel plated trimmings, reversible transparent arm, 7 inches... EACH \$1.75  
No. B-01834—SECTION LINER, hardwood, nickel plated trimmings, reversible, transparent arm, 15 inches... 2.00



No. B-01835

No. B-01835—TERRY'S SECTION LINER, with 7 in. mahogany, celluloid lined rule on heavy metal plate... EACH \$5.00  
No. B-01836—TERRY'S SECTION LINER, with 12 in. mahogany, celluloid lined rule on heavy metal plate... 6.50



# Parallel Rules



No. B-01840

EACH

No. B-01840—PARALLEL RULE, ebony, brass bars, 6 in. . . .	\$0.45
No. B-01841—PARALLEL RULE, ebony, brass bars, 9 in. . . .	.75
No. B-01842—PARALLEL RULE, ebony, brass bars, 12 in. . . .	1.00
No. B-01843—PARALLEL RULE, ebony, brass bars, 15 in. . . .	1.20
No. B-01844—PARALLEL RULE, ebony, brass bars, 18 in. . . .	1.65
No. B-01845—PARALLEL RULE, ebony, brass bars, 24 in. . . .	2.40
No. B-01846—PARALLEL RULE, transparent, nickel-plated bars, 12 in. . . . .	1.60
No. B-01847—PARALLEL RULE, transparent, nickel-plated bars, 15 in. . . . .	1.90
No. B-01848—PARALLEL RULE, transparent, nickel-plated bars, 18 in. . . . .	2.35



Nos. B-01854-B-01863

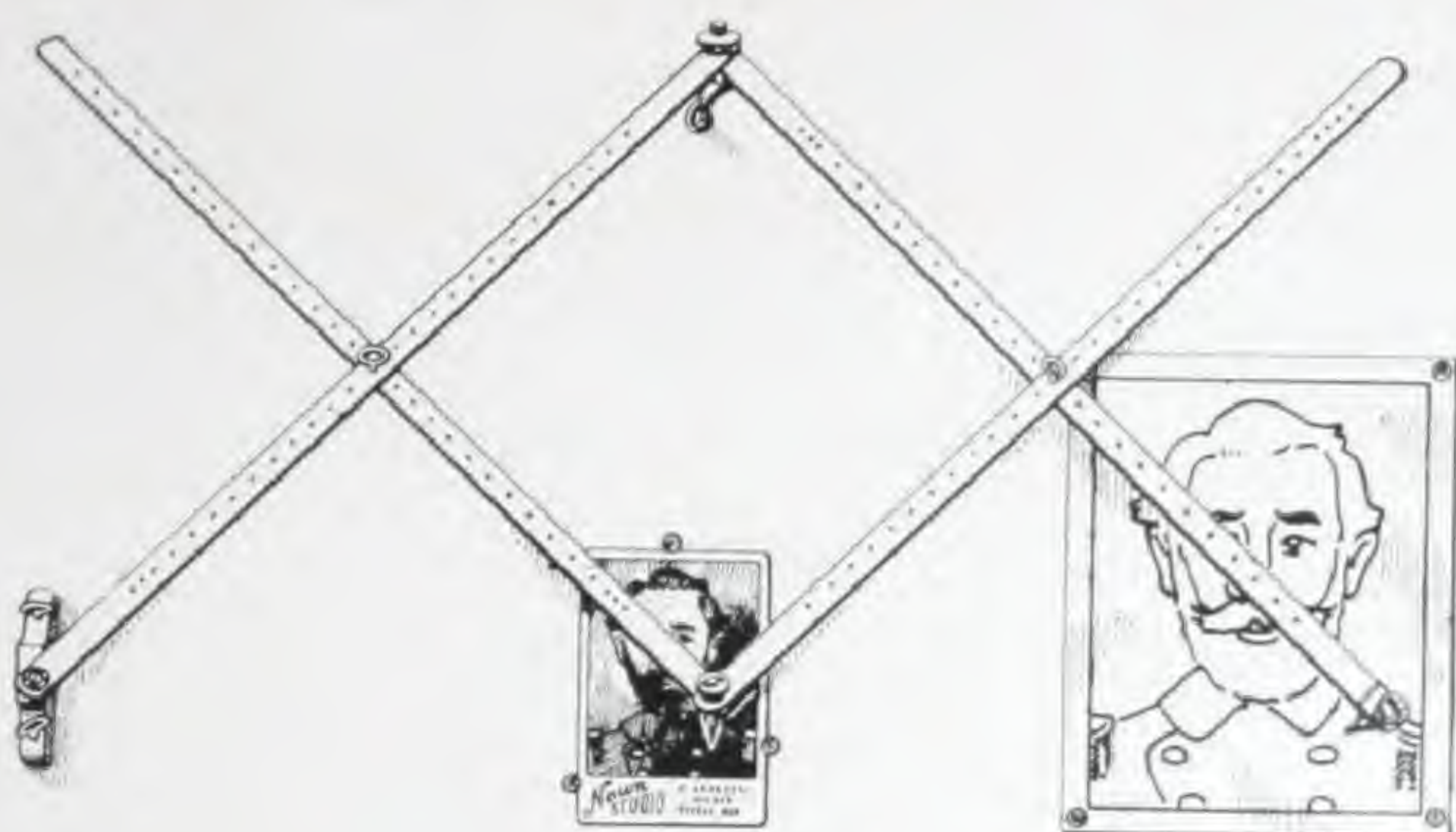
EACH

No. B-01854—ROLLING PARALLEL RULE, solid brass, fine finish, 9 in. . . . .	\$ 7.50
No. B-01855—ROLLING PARALLEL RULE, solid brass, fine finish, 12 in. . . . .	9.50
No. B-01856—ROLLING PARALLEL RULE, solid brass, fine finish, 15 in. . . . .	11.50
No. B-01857—ROLLING PARALLEL RULE, solid brass, fine finish, 18 in. . . . .	14.00
No. B-01858—ROLLING PARALLEL RULE, solid brass, fine finish, 24 in. . . . .	18.00
No. B-01859—ROLLING PARALLEL RULE, solid German silver, 9 in. . . . .	9.00
No. B-01860—ROLLING PARALLEL RULE, solid German silver, 12 in. . . . .	11.00
No. B-01861—ROLLING PARALLEL RULE, solid German silver, 15 in. . . . .	13.00
No. B-01862—ROLLING PARALLEL RULE, solid German silver, 18 in. . . . .	15.50
No. B-01863—ROLLING PARALLEL RULE, solid German silver, 24 in. . . . .	21.00



## Pantographs

For Enlarging and Reducing Drawings



No. B-01872

- |  | EACH   |
|--|--------|
| No. B-01870—PANTOGRAPH, Heavily Mounted, with nickel-plated elbow joint wheel, pencil holder and exchangeable point; finely polished, black figures, 21 in. arms . . . . . | \$2.75 |
| No. B-01872—PANTOGRAPH, Brass Mounted, with brass elbow joint wheel, pencil holder and movable point; polished, black figures, 21 in. arms . . . . .                       | 2.25   |
| No. B-01874—PANTOGRAPH, Brass Mounted, same as No. B-01872 in every respect, except that it is not polished . . . . .  | 1.75   |
| No. B-01876—PANTOGRAPH, Brass Mounted, same as No. B-01874, except movable point instead of wheel . . .  | 1.25   |
| No. B-01878—PANTOGRAPH, the best for the price. It has very neat and substantial trimmings, clean-cut figures; a very satisfactory instrument . . . . .                    | .60    |
| No. B-01880—PANTOGRAPH, small . . . . .  | .30    |
| No. B-01882—PANTOGRAPH, Pear Wood, 22 in. arms . . . . .   | 5.00   |
| No. B-01884—PANTOGRAPH, Pear Wood, 41 in. arms . . . . .   | 6.00   |



## Protractors

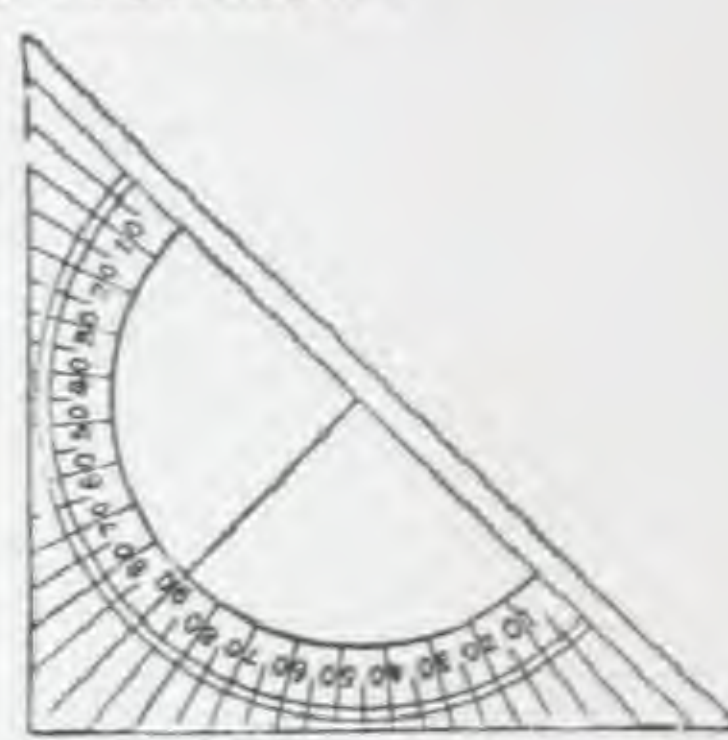
### Paper Protractors

	EACH
No. B-01900—CIRCULAR PROTRACTOR, on drawing paper, 8 in. diam., $\frac{1}{2}^{\circ}$ .....	\$0.20
No. B-01901—CIRCULAR PROTRACTOR, on drawing paper, 14 in. diam., $\frac{1}{4}^{\circ}$ .....	.30
No. B-01904—CIRCULAR PROTRACTOR, on bristol board, 8 in. diam., $\frac{1}{2}^{\circ}$ .....	.20
No. B-01905—CIRCULAR PROTRACTOR, on bristol board, 14 in. diam., $\frac{1}{4}^{\circ}$ .....	.40
No. B-01908—CIRCULAR PROTRACTOR, on tracing paper, 8 in. diam., $\frac{1}{2}^{\circ}$ .....	.20
No. B-01909—CIRCULAR PROTRACTOR, on tracing paper, 14 in. diam., $\frac{1}{4}^{\circ}$ .....	.30

### Transparent Protractors



No. B-01916



No. B-01921

	EACH
No. B-01916—TRIANGLE PROTRACTOR, transparent, 30°x60°, 5 in., 1° .....	\$0.50
No. B-01917—TRIANGLE PROTRACTOR, transparent, 30°x60°, 6 in., 1° .....	.55
No. B-01918—TRIANGLE PROTRACTOR, transparent, 30°x60°, 7 in., 1° .....	.75
No. B-01921—TRIANGLE PROTRACTOR, transparent, 45°, 5 in., 1° .....	.55
No. B-01922—TRIANGLE PROTRACTOR, transparent, 45°, 6 in., 1° .....	.75
No. B-01923—TRIANGLE PROTRACTOR, transparent, 45°, 7 in., 1° .....	.95



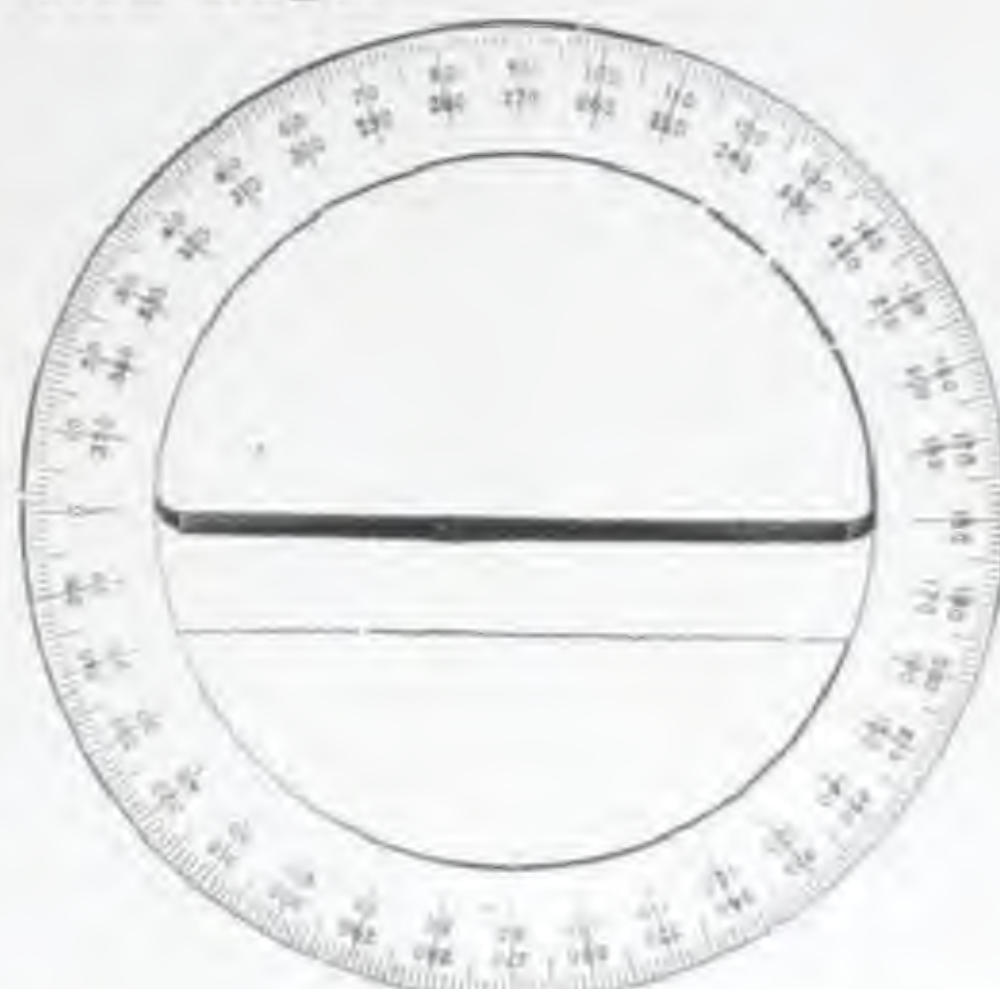
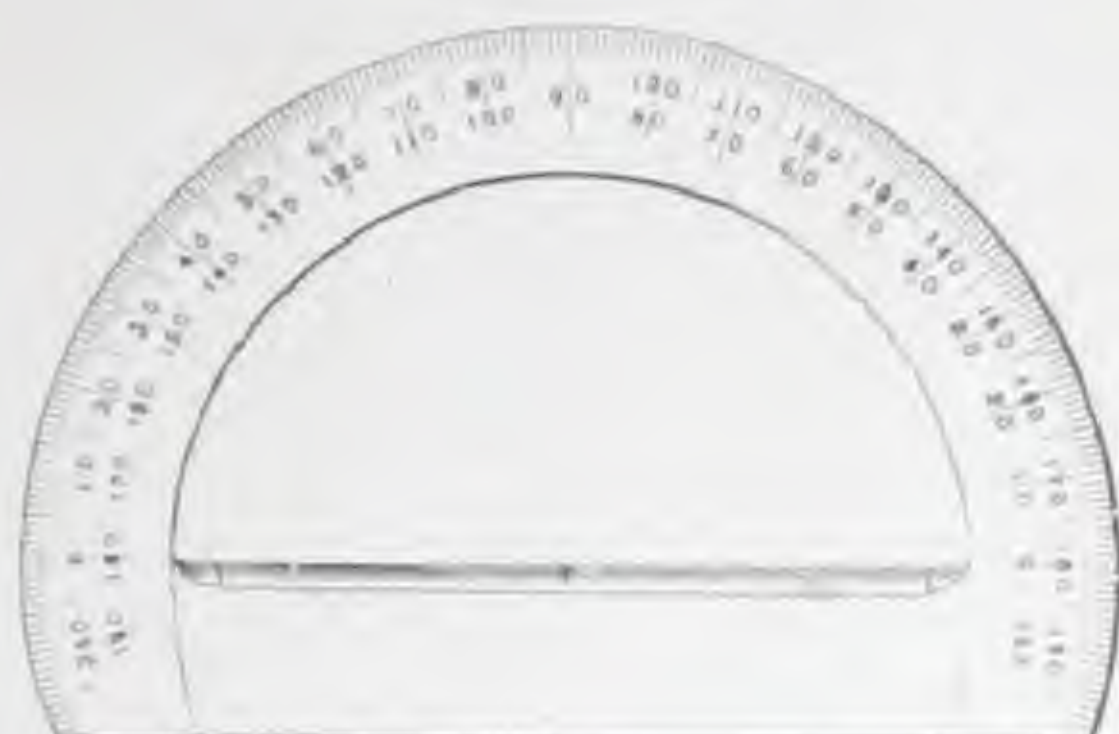
No. B-01924

	EACH
No. B-01924—SEMI-CIRCULAR PROTRACTOR, transparent, 4 in. diam., $\frac{1}{2}^{\circ}$ .....	\$0.45
No. B-01925—SEMI-CIRCULAR PROTRACTOR, transparent, 5 in. diam., $\frac{1}{2}^{\circ}$ .....	.50
No. B-01926—SEMI-CIRCULAR PROTRACTOR, transparent, 6 in. diam., $\frac{1}{2}^{\circ}$ .....	.65
No. B-01927—SEMI-CIRCULAR PROTRACTOR, transparent, 7 in. diam., $\frac{1}{2}^{\circ}$ .....	.85
No. B-01928—SEMI-CIRCULAR PROTRACTOR, transparent, 8 in. diam., $\frac{1}{2}^{\circ}$ .....	1.25



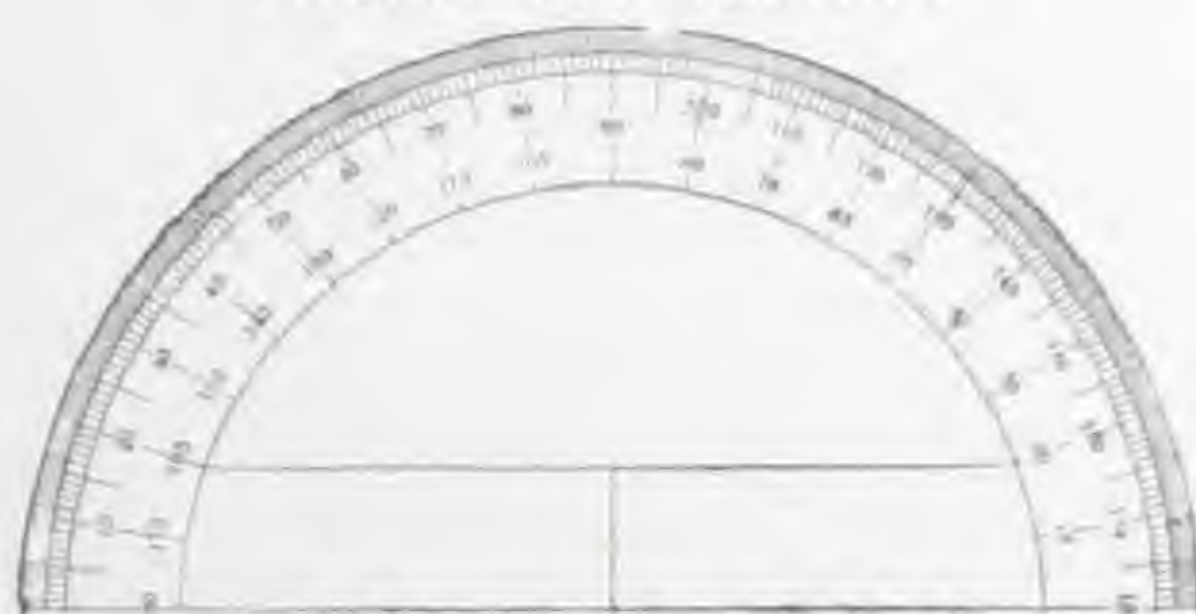
## Transparent Protractors—Continued

### Heavy, with Beveled Edges



	No. B-01931	No. B-01935	EACH
No. B-01931—	TRANSPARENT PROTRACTOR, semi-circular, 6 in., beveled edge, $\frac{1}{2}^\circ$		\$2.75
No. B-01933—	TRANSPARENT PROTRACTOR, semi-circular, 8 in., beveled edge, $\frac{1}{2}^\circ$		3.50
No. B-01935—	TRANSPARENT PROTRACTOR, circular, 6 in., beveled edge, $\frac{1}{2}^\circ$		3.50
No. B-01937—	TRANSPARENT PROTRACTOR, circular, 8 in., beveled edge, $\frac{1}{2}^\circ$		4.50
No. B-01939—	TRANSPARENT PROTRACTOR, circular, 10 in., beveled edge, $\frac{1}{2}^\circ$		5.50

### Metal Protractors



	No. B-01951	EACH
No. B-01951—	NICKELED PROTRACTOR, semi-circular, 3 in., diameter, $1^\circ$ ordinary	\$0.05
No. B-01953—	BRASS PROTRACTOR, semi-circular, 3 in. diameter, $1^\circ$ ordinary	.10
No. B-01955—	BRASS PROTRACTOR, semi-circular, 3 in. diameter, $1^\circ$ fine	.15

### Brass Protractors—Best Quality

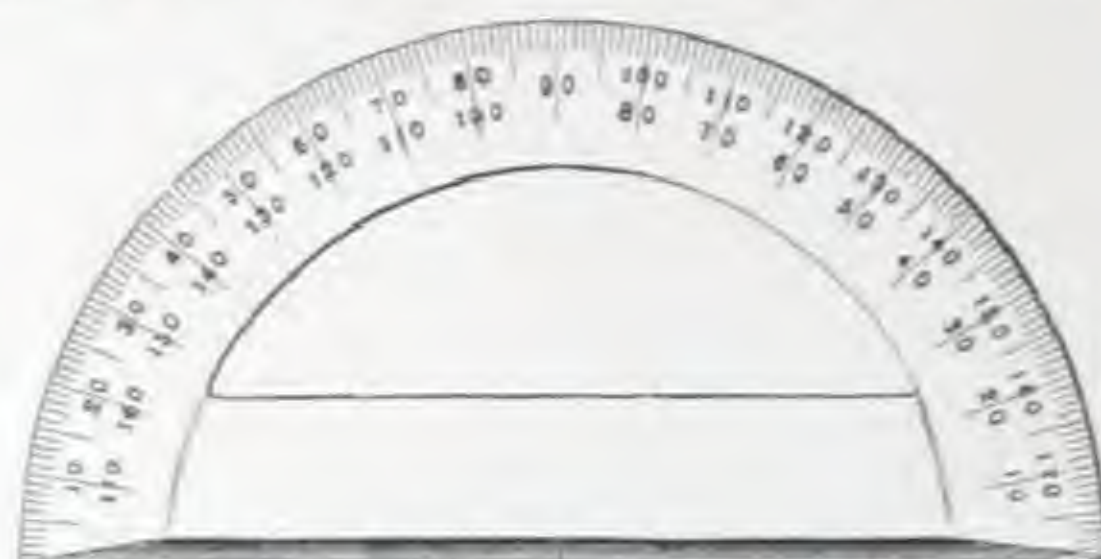
	EACH
No. B-01961—	BRASS PROTRACTOR, semi-circular, $3\frac{1}{2}$ in. diameter, $1^\circ$ , \$0.20
No. B-01962—	BRASS PROTRACTOR, semi-circular, $4\frac{1}{4}$ in. diameter, $1^\circ$ , .25
No. B-01963—	BRASS PROTRACTOR, semi-circular, $5\frac{1}{8}$ in. diameter, $\frac{1}{2}^\circ$ , .50
No. B-01964—	BRASS PROTRACTOR, semi-circular, $6\frac{3}{8}$ in. diameter, $\frac{1}{2}^\circ$ , .75



## Metal Protractors—Continued

### German Silver Protractors

	EACH
No. B-01970—GERMAN SILVER PROTRACTOR, semi-circular, $4\frac{1}{4}$ in. diameter, $1^\circ$ .....	\$0.50
No. B-01971—GERMAN SILVER PROTRACTOR, semi-circular, $5\frac{1}{8}$ in. diameter, $\frac{1}{2}^\circ$ .....	.70
No. B-01972—GERMAN SILVER PROTRACTOR, semi-circular, $6\frac{3}{8}$ in. diameter, $\frac{1}{2}^\circ$ .....	.90
No. B-01973—GERMAN SILVER PROTRACTOR, semi-circular, $7\frac{1}{2}$ in. diameter, $\frac{1}{2}^\circ$ .....	1.20
No. B-01974—GERMAN SILVER PROTRACTOR, semi-circular, $8\frac{1}{2}$ in. diameter, $\frac{1}{2}^\circ$ .....	1.50

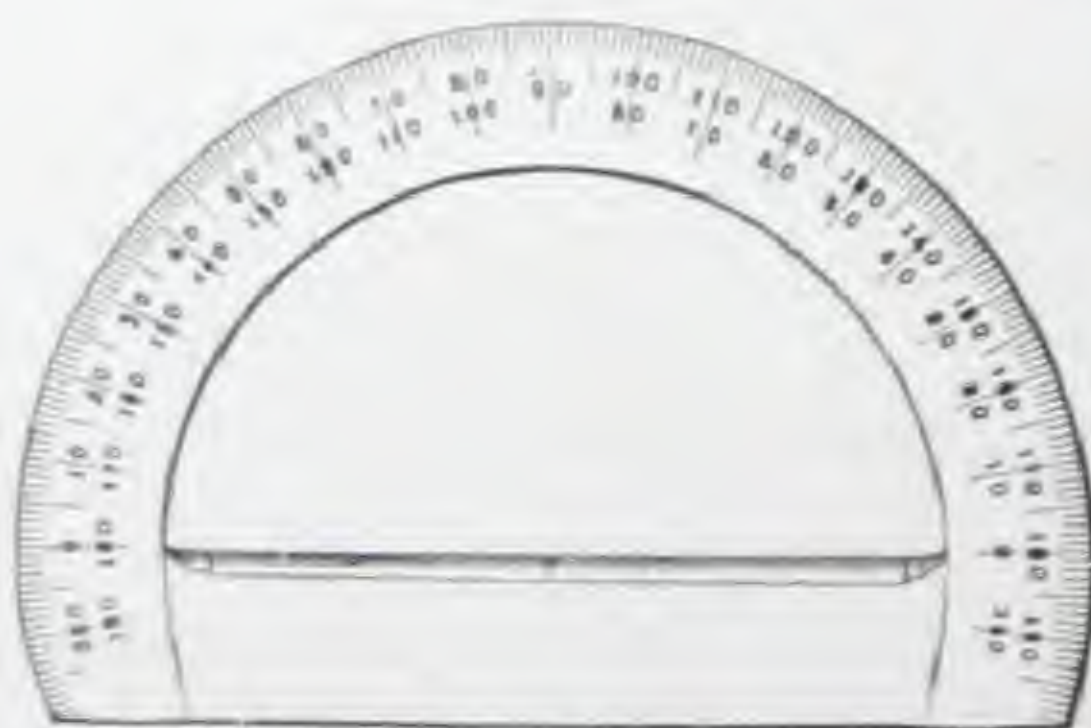


No. B-01975

Center on Outer Edge

	EACH
No. B-01975—GERMAN SILVER PROTRACTOR, semi-circular, 4 in., beveled, $1^\circ$ .....	\$1.20
No. B-01977—GERMAN SILVER PROTRACTOR, semi-circular, 5 in., beveled, $\frac{1}{2}^\circ$ .....	1.50
No. B-01978—GERMAN SILVER PROTRACTOR, semi-circular, 6 in., beveled, $\frac{1}{2}^\circ$ .....	2.00
No. B-01979—GERMAN SILVER PROTRACTOR, semi-circular, 6 in., beveled, $\frac{1}{4}^\circ$ .....	2.40
No. B-01980—GERMAN SILVER PROTRACTOR, semi-circular, 7 in., beveled, $\frac{1}{2}^\circ$ .....	2.70
No. B-01981—GERMAN SILVER PROTRACTOR, semi-circular, 8 in., beveled, $\frac{1}{2}^\circ$ .....	3.50

Center on Inner Edge



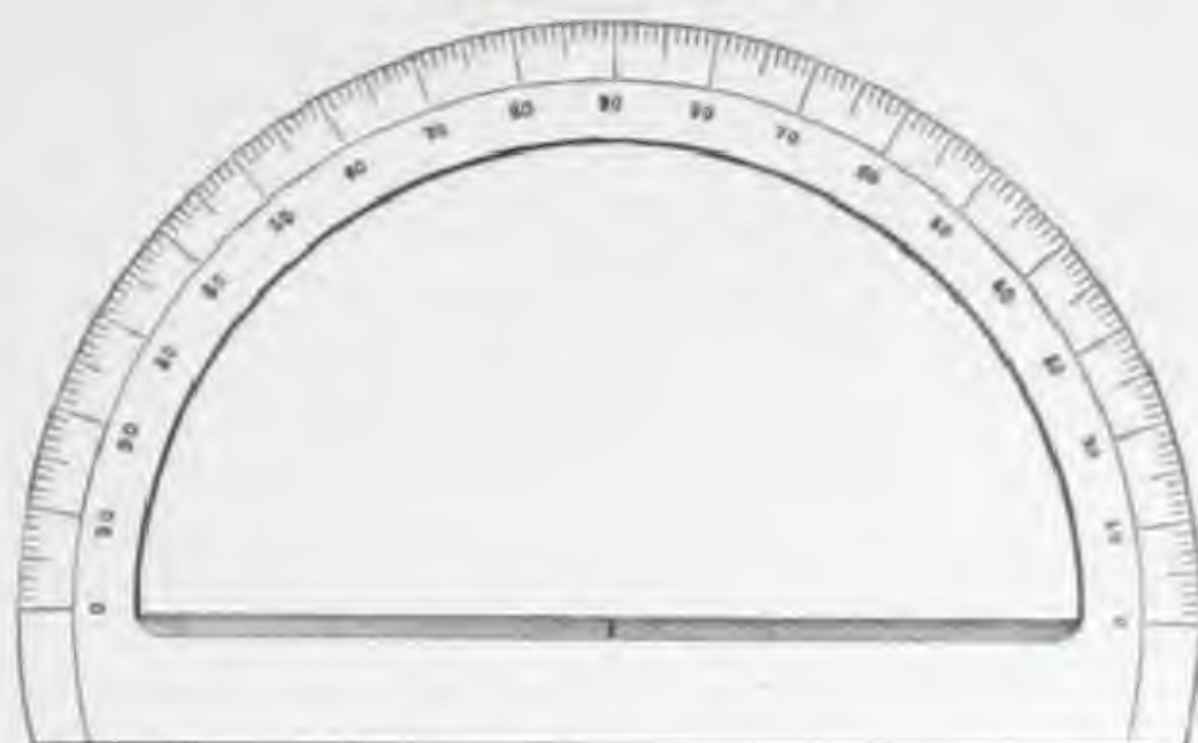
No. B-01982

No. B-01982—GERMAN SILVER PROTRACTOR, semi-circular, 4 in., beveled, $1^\circ$ .....	Each \$1.50
No. B-01983—GERMAN SILVER PROTRACTOR, semi-circular, 5 in., beveled, $\frac{1}{2}^\circ$ .....	Each \$2.00
No. B-01984—GERMAN SILVER PROTRACTOR, semi-circular, 6 in., beveled, $\frac{1}{2}^\circ$ .....	Each \$2.40
No. B-01985—GERMAN SILVER PROTRACTOR, semi-circular, 6 in., beveled, $\frac{1}{4}^\circ$ .....	Each \$3.00



## Alteneder German Silver Protractors

Made in U. S. A.



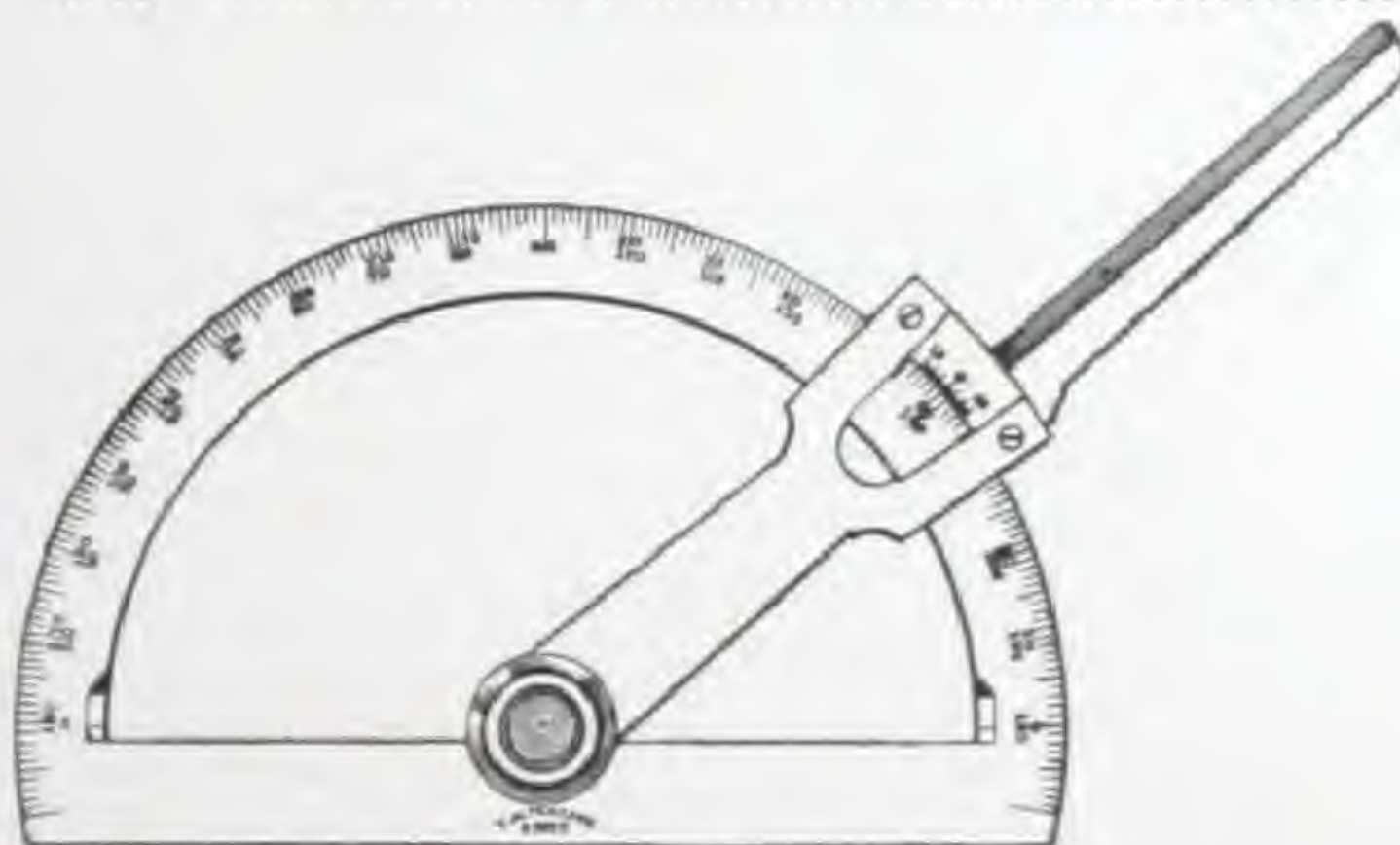
No. B-01986A

### Semi-circular Inside Center

	EACH
No. B-01986A—ALTENEDER GERMAN SILVER PROTRACTOR, 6 in., graduated to $\frac{1}{2}^{\circ}$	\$ 5.75
No. B-01986B—ALTENEDER GERMAN SILVER PROTRACTOR, 8 in., graduated to $\frac{1}{4}^{\circ}$	8.50
No. B-01986C—ALTENEDER GERMAN SILVER PROTRACTOR, 10 in., graduated to $\frac{1}{4}^{\circ}$	10.50

### Circular

	EACH
No. B-01987A—ALTENEDER GERMAN SILVER PROTRACTOR, 6 in., graduated to $\frac{1}{2}^{\circ}$	\$ 9.75
No. B-01987B—ALTENEDER GERMAN SILVER PROTRACTOR, 8 in., graduated to $\frac{1}{4}^{\circ}$	13.00
No. B-01987C—ALTENEDER GERMAN SILVER PROTRACTOR, 10 in., graduated to $\frac{1}{4}^{\circ}$	17.00



No. B-01988A

### Semi-circular, with Arm and Vernier

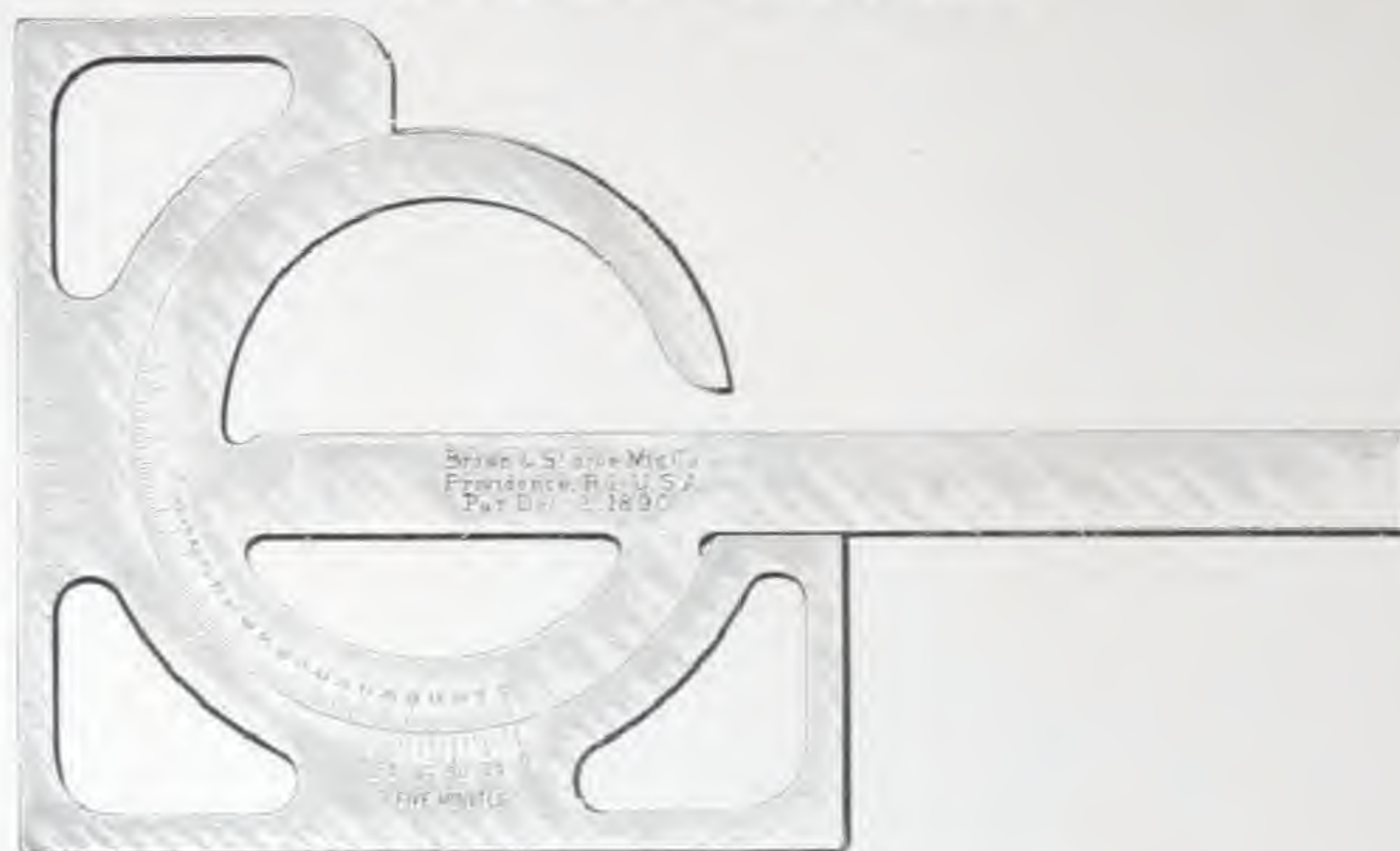
	EACH
No. B-01988A—ALTENEDER GERMAN SILVER PROTRACTOR, 6 in., graduated to $\frac{1}{2}^{\circ}$ , vernier reading to 3'	\$15.75
No. B-01988B—ALTENEDER GERMAN SILVER PROTRACTOR, 8 in., graduated to $\frac{1}{4}^{\circ}$ , vernier reading to 1'	19.75
No. B-01988C—ALTENEDER GERMAN SILVER PROTRACTOR, 10 in., graduated to $\frac{1}{4}^{\circ}$ , vernier reading to 1'	23.50

### Circular, with Arm and Vernier

	EACH
No. B-01989A—ALTENEDER GERMAN SILVER PROTRACTOR, 6 in., graduated to $\frac{1}{2}^{\circ}$ , vernier reading to 3'	\$20.75
No. B-01989B—ALTENEDER GERMAN SILVER PROTRACTOR, 8 in., graduated to $\frac{1}{4}^{\circ}$ , vernier reading to 1'	22.25
No. B-01989C—ALTENEDER GERMAN SILVER PROTRACTOR, 10 in., graduated to $\frac{1}{4}^{\circ}$ , vernier reading to 1'	26.25



## Draftsman's Protractor



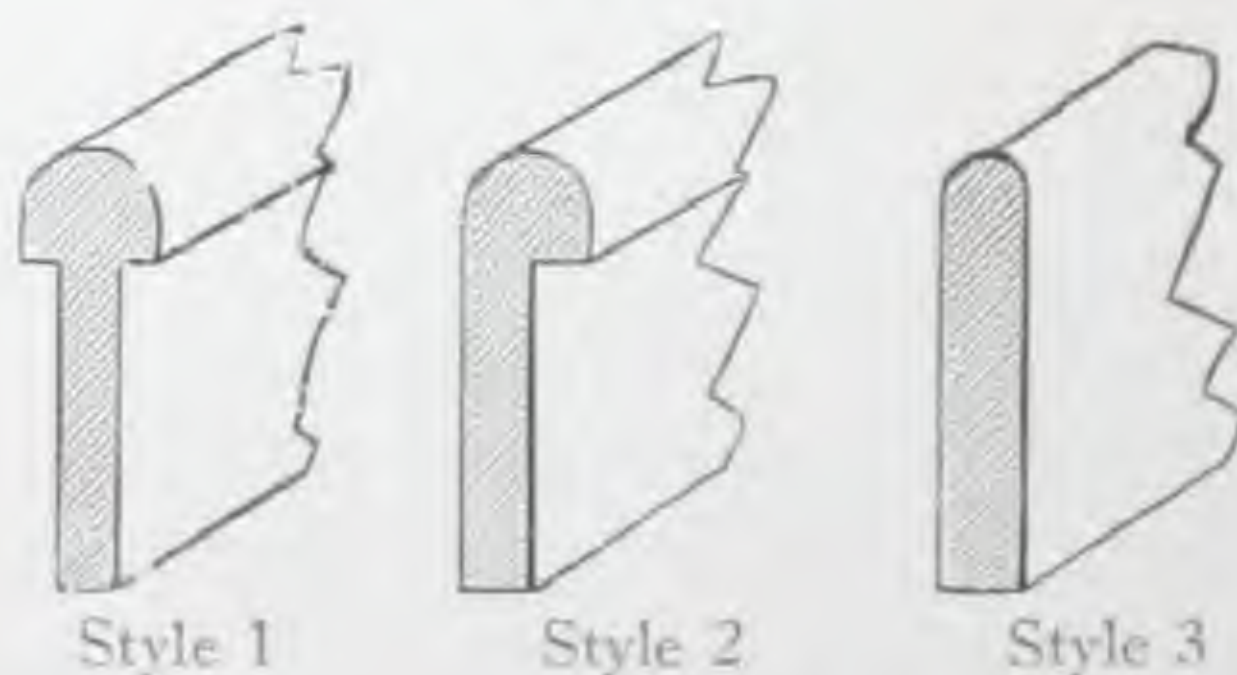
No. B-01997

No. B-01997—DRAFTSMAN'S STEEL PROTRACTOR, with directions	EACH \$6.50
No. B-01998—DRAFTSMAN'S STEEL PROTRACTOR, in morocco case	7.75

This Protractor is made from sheet steel and has a blade  $8\frac{1}{2}$  inches long. The graduations read to degrees and the vernier reads to five minutes.

## Bars for Beam Compasses

Hardwood



No. B-01999—BEAM COMPASS BARS, Style 1, 2 or 3.						
Size, inches	24	30	36	42	48	60
Each	\$0.30	.35	.40	.45	.55	.75



## Wooden Triangles



No. B-02000



No. B-02001

Our Wooden Triangles are made of thoroughly seasoned wood with inlaid joints.

No. B-02000—CHERRY TRIANGLES, framed, mortised joints,  
30° x 60°.

Size, inches	8	10	12	14
Each	\$0.14	.18	.22	.26

No. B-02001—CHERRY TRIANGLES, framed, mortised joints,  
45° x 45°.

Size, inches	6	8	10	12
Each	\$0.14	.18	.22	.26

No. B-02002—PEARWOOD TRIANGLES, framed, extra quality,  
30° x 60°.

Size, inches	8	10	12	14
Each	\$0.22	.28	.34	.40

No. B-02003—PEARWOOD TRIANGLES, framed, extra quality,  
45° x 45°.

Size, inches	6	8	10	12
Each	\$0.22	.28	.34	.40

No. B-02004—ASH, MAPLE-LINED TRIANGLES, mortised joints,  
30° x 60°.

Size, inches	8	10	12	14	16
Each	\$0.30	.35	.45	.55	.75

No. B-02005—ASH, MAPLE-LINED TRIANGLES, mortised joints,  
45° x 45°.

Size, inches	6	8	10	12	14
Each	\$0.30	.35	.45	.55	.75



## Wooden Triangles—Continued

Mortised Joints



No. B-02006



No. B-02007

No. B-02006—TRIANGLES, Mahogany, Ebony Lined, 30°x60°.

Size, inches	8	10	12	14
Each	\$0.35	.45	.60	.75

No. B-02007—TRIANGLES, Mahogany, Ebony Lined, 45°x45°.

Size, inches	6	8	10	12	14
Each	\$0.35	.45	.60	.75	1.20

## Black Celluloid Triangles



No. B-02008



No. B-02009

No. B-02008—TRIANGLES, Black Celluloid, 30°x60°.

Size, inches....	4	5	6	7	8	9	10	12	14	16	18
Each	\$0.15	.20	.25	.30	.35	.40	.45	.60	1.00	1.50	2.00

No. B-02009—TRIANGLES, Black Celluloid, 45°x45°.

Size, inches....	3	4	5	6	7	8	9	10	12	14	16
Each	\$0.15	.25	.30	.35	.40	.45	.55	.60	1.00	1.50	2.20



**Transparent Celluloid Triangles**  
Plain, Without Finger Lifts



No. B-02011



No. B-02013



No. B-02012

No. B-02011—TRANSPARENT CELLULOID TRIANGLES, 30°x60°.													
Size, in...	4	5	6	7	8	9	10	11	12	14	16	18	
Each	\$0.25	.30	.35	.40	.50	.55	.70	.75	.85	1.30	1.60	2.20	
No. B-02012—TRANSPARENT CELLULOID TRIANGLES, 45°x45°.													
Size, in.....	3	4	5	6	7	8	9	10	12	14	16		
Each	\$0.20	.30	.35	.45	.50	.70	.85	.90	1.45	1.95	2.70		
No. B-02013—TRANSPARENT CELLULOID TRIANGLES, 22½°x67½°.													
Size, in.....	4	6	8	10	12	14	16						
Each	\$0.30	.40	.55	.75	.90	1.25	1.60						

**Improved, With Finger Lifts**



No. B-02014



No. B-02016



No. B-02015

No. B-02014—TRANSPARENT CELLULOID TRIANGLES, 30°x60° with finger lifts.													
Size, in...	4	5	6	7	8	9	10	11	12	14	16	18	
Each	\$0.30	.35	.40	.45	.55	.60	.75	.80	.90	1.35	1.65	2.25	
No. B-02015—TRANSPARENT CELLULOID TRIANGLES, 45°x45° with finger lifts.													
Size, in.....	3	4	5	6	7	8	9	10	12	14	16		
Each	\$0.30	.35	.40	.50	.55	.70	.90	1.00	1.50	2.00	2.70		
No. B-02016—TRANSPARENT CELLULOID TRIANGLES, 22½°x67½° with finger lifts.													
Size, in.....	4	6	8	10	12	14	16						
Each	\$0.40	.50	.65	.85	1.00	1.35	1.70						



## Peerless Green Celluloid Triangles



No. B-02018



No. B-02019

Made of extremely hard transparent Green Celluloid. Restful to the eyes as it casts no shadows. Orange colored lines appear black. Unsurpassed for working under electric light.

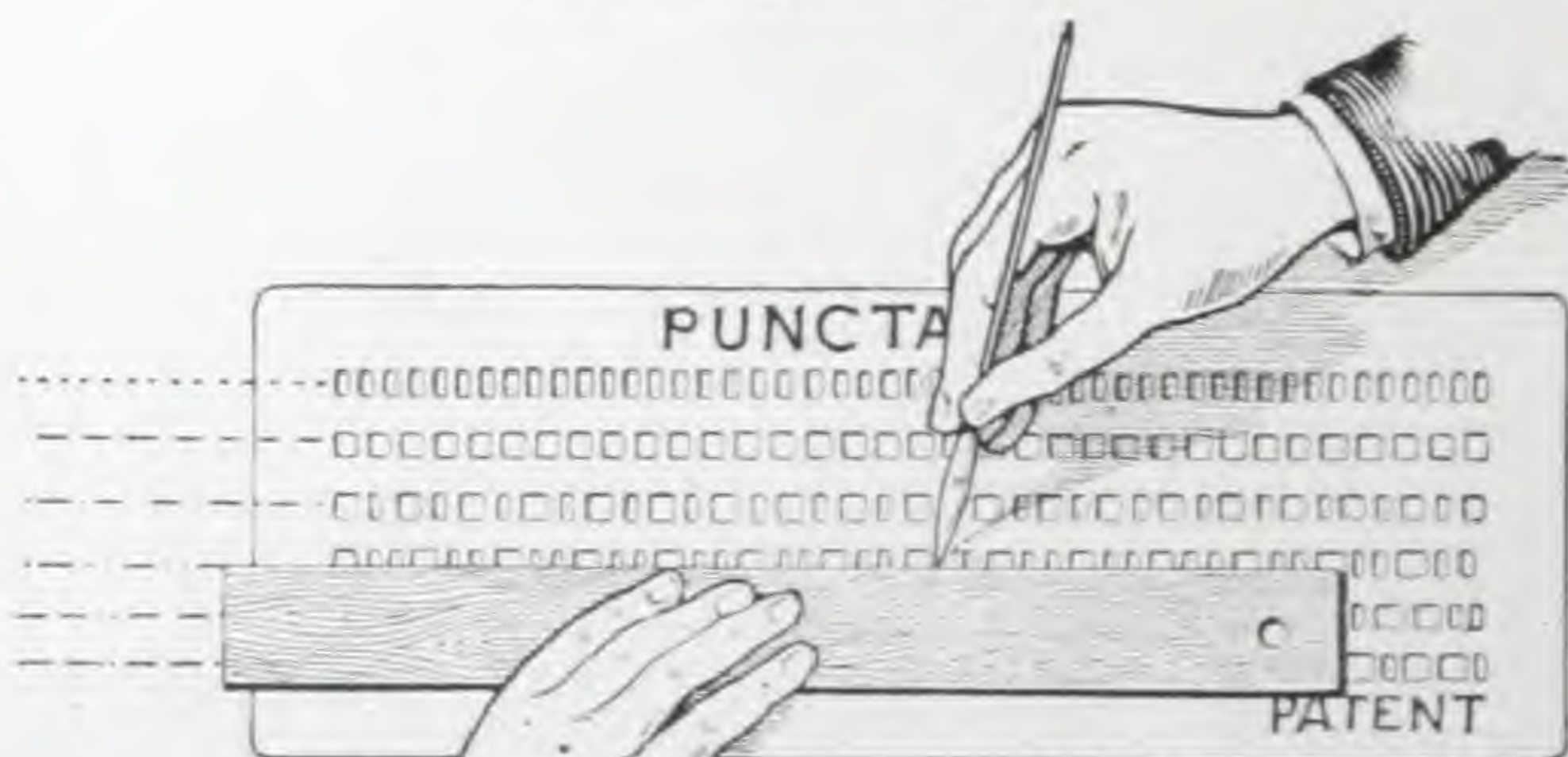
No. B-02018—PEERLESS GREEN CELLULOID TRIANGLES, 30°-60°.

Size, inches.....	4	5	6	7	8	9	10	12	14
Each .....	\$0.20	.30	.35	.40	.50	.60	.70	.85	1.30

No. B-02019—PEERLESS GREEN CELLULOID TRIANGLES, 45°.

Size, inches.....	4	5	6	7	8	9	10	12	14
Each .....	\$0.30	.40	.45	.60	.70	.85	.90	1.45	1.90

## The Pease Punctator for Drawing Dotted Lines



This new device consists of a thin sheet of transparent celluloid 4 x 11 inches, with six series of openings.

By placing a Straightedge over the selected openings, a dotted line can be drawn with a ruling pen or pencil.

The Punctator, being slightly rolled, is automatically lifted from the drawing when the Straightedge is withdrawn, without blotting the lines.

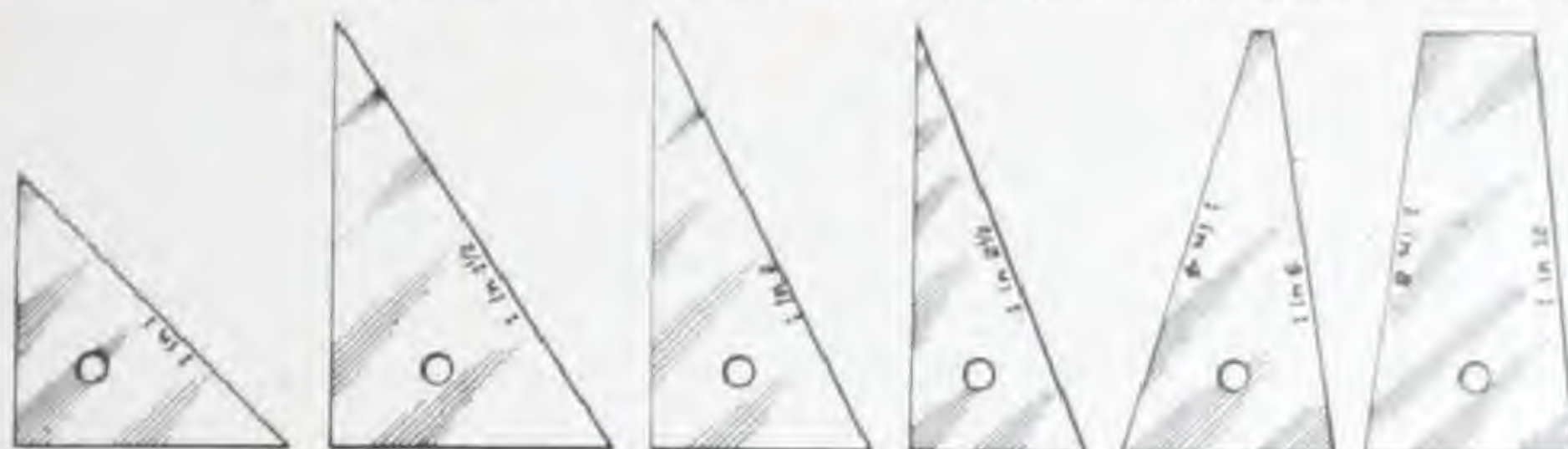
No. B-03030—PEASE PUNCTATOR. Each.....\$0.75



## Triangles for Roof Pitches and Embankments

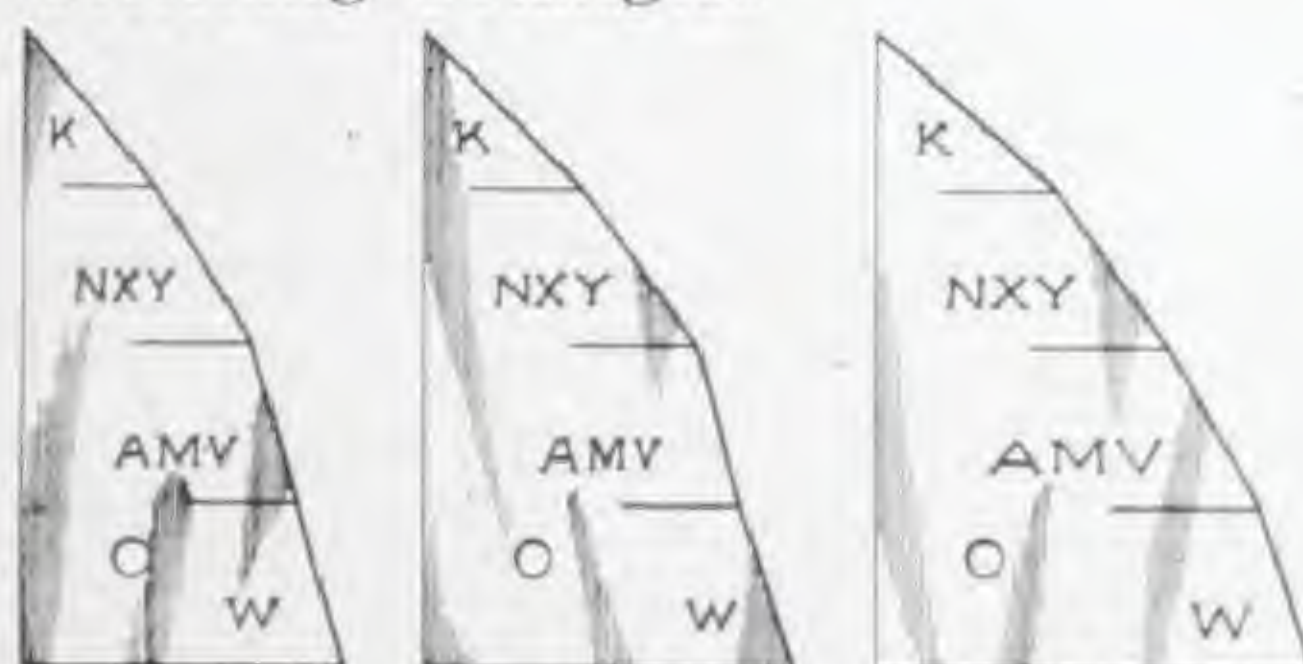


No. B-0201—TRANSPARENT TRIANGLES, for roof pitches, 6 in set. Per set, .....\$3.00 Each \$0.60



No. B-0202—TRANSPARENT TRIANGLES, for embankments, 8 slopes on 6 templates. Per set, .....\$4.50 Each \$0.85

## Lettering Triangles



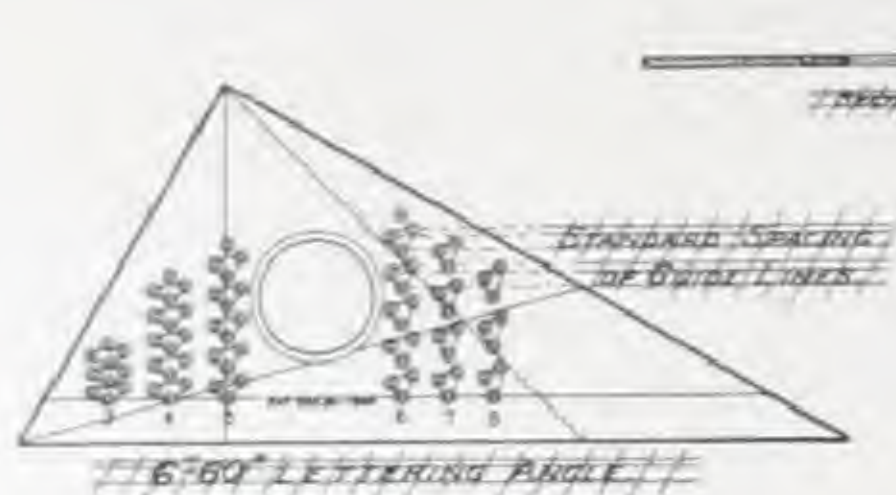
No. B-0205—LETTERING TRIANGLES, of transparent celluloid, 3 in set. Per set, .....\$1.50



No. B-0207—LETTERING TEMPLATES, transparent, 3 1/2 in., 3 in set. Per set, .....\$2.00



## "Unique" Lettering Angles



No. B-02028



No. B-02030

The main special feature of the Lettering Angle is the tapered holes, uniformly spaced in such a way that practically any desired spacing of guide lines for lettering can be obtained accurately, quickly and easily, by drawing lines with a pencil point inserted through the tapered holes. The holes being tapered prevent breaking the point of pencil.

If you already have a standard spacing for your lettering, other than given direct on Lettering Angles, you can find holes that will give the spacings as follows: Lay out lines of your standard spacings, set some hole in Lettering Angle over bottom line, and mark holes that coincide with the other lines so as to easily distinguish them.

Cross lines are scored so as to obtain 15°, 30°, 45°, 60°, 75° and 90° angle from any Lettering Angle, and to square Lettering Angle with work.

The pick-up hole is beveled all around as shown in section above.

"Unique" Lettering Angles are made of the best heavy transparent material and are carefully checked to insure accuracy.

Descriptive pamphlets sent with Lettering Angles describe the several uses in detail.

No. B-02028—"UNIQUE" LETTERING ANGLE, 30°-60°.

Size, inches.....	5	6	7	8	9
Each .....	\$0.60	.70	.75	.85	.95

No. B-02030—"UNIQUE" LETTERING ANGLE, 45°.

Size, inches.....	4	5	6	7	8
Each .....	\$0.65	.75	.85	.95	1.05





## "Unique" Lettering Angles

—Continued

### Value of Lettering Angles

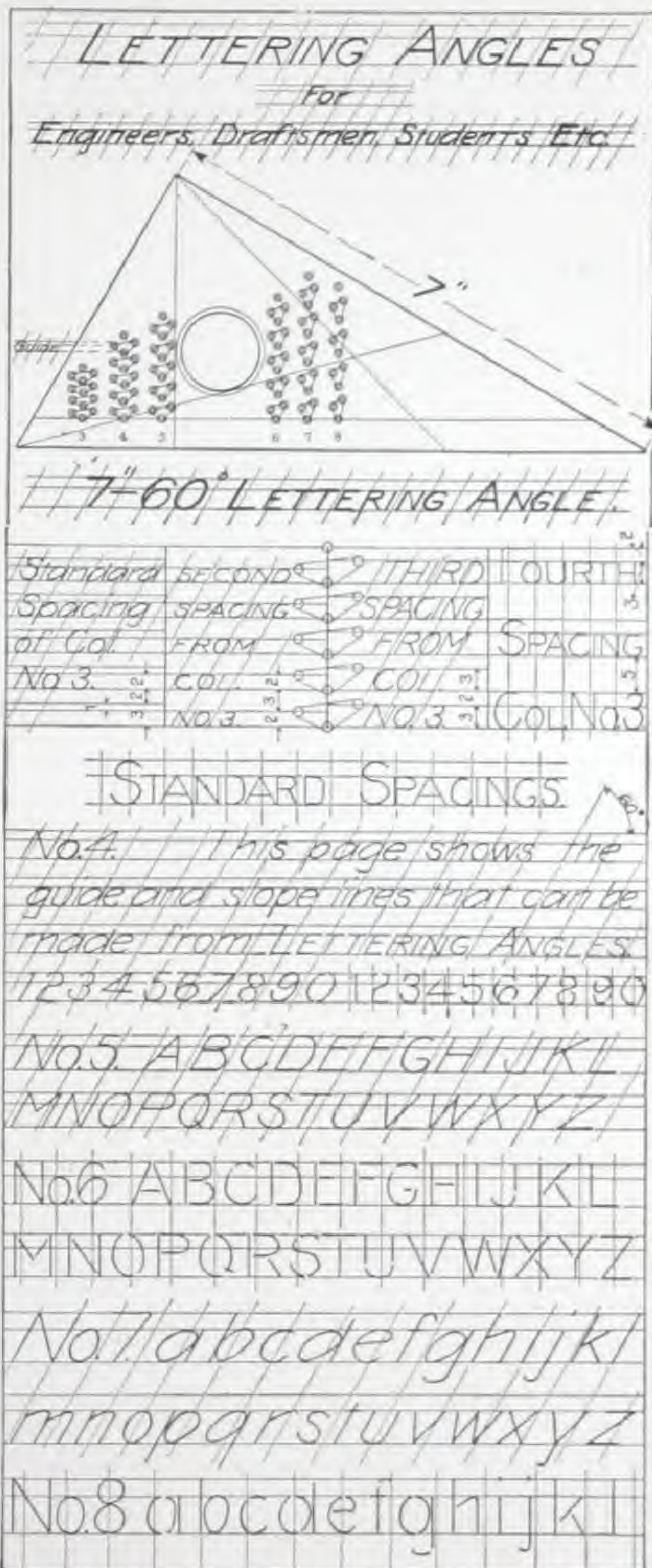
The student learning to draw must make guide lines and slope lines for his lettering. Laying off with scale or dividers is slow work and difficult to get spaces uniform. He will find that he will be able to make fine tracings, long before he can letter neatly.

By using the Lettering Angles, these spacing lines can be drawn uniformly and rapidly, requiring no practice to do so.

By using the Lettering Angles, he will be able to letter neatly, in much shorter time.

Engineers, architects, draftsmen and others, find the Lettering Angles very useful when neat lettering is required, as few can letter neatly without guide lines. They appreciate the fact that this gives them the use of another instrument, without taking up more room on the crowded drawing board. By selecting certain spacings as standard, the lettering on all drawings may be kept uniform for similar notes and titles. This is especially valuable where drawings are to be reduced for publication.

Description and prices on preceding page.





## Straightedges



No. B-02031

No. B-02031—CHERRY STRAIGHTEDGE.

Size, inches	15	18	24	30	36	42
Each	\$0.15	.20	.25	.30	.40	.50



No. B-02033

No. B-02033—HARDWOOD STRAIGHTEDGE, maple lined.

Size, inches	24	30	36	42	48	54	60	72
Each	\$0.40	.50	.65	.85	1.10	1.30	1.60	2.25



No. B-02035

No. B-02035—MAHOGANY STRAIGHTEDGE, ebony lined.

Size, inches	24	30	36	42	48	54	60
Each	\$0.55	.70	.90	1.15	1.40	1.65	2.10



No. B-02037

No. B-02037—MAPLE STRAIGHTEDGE, transparent edges.

Size, inches	18	24	30	36	42	48	54
Each	\$0.85	1.10	1.35	1.65	2.00	2.50	3.15

No. B-02038—STEEL STRAIGHTEDGE, nickel plated, one edge beveled.

Size, inches	18	24	30	36	42	48
Each	\$2.60	\$3.70	5.00	6.50	8.25	10.00

No. B-02039—STEEL STRAIGHTEDGE, nickel plated, square edges.

Size, inches	18	24	30	36	42	48
Each	\$1.90	2.70	3.60	4.70	6.00	7.50



## Parallel Rule Attachment

This attachment consists of four one and one-half-inch pulleys and a tightener, as shown in the cut below, together with sufficient flexible wire of special make to properly adjust a suitable straightedge to the largest size boards.



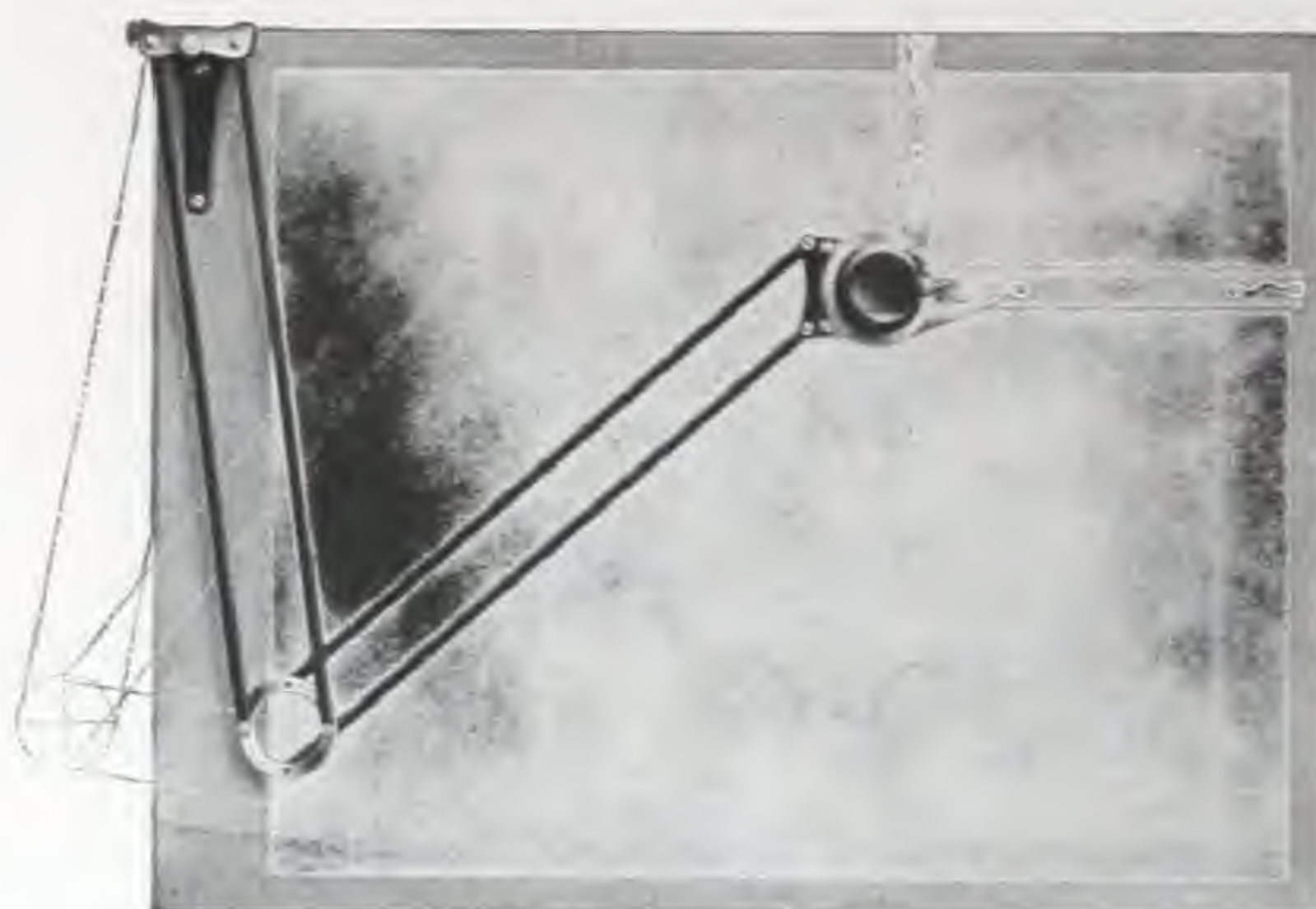
No. B-02040—PARALLEL RULE ATTACHMENT WITHOUT STRAIGHTEDGE ..... Each \$4.00

## Straightedge for Parallel Rule Attachment

Length of board, inches.....	42	48	54	60	72
No. B-02042—ASH, Maple lined.....	\$1.20	\$1.50	\$1.75	\$2.10	\$2.50
No. B-02044—MAPLE, Celluloid lined.....	2.75	3.50	4.50	5.50	6.50



## The Universal Drafting Machine



No. B-02060

### Hardened Joint Solid Rod Machine with Standard Protractor and Corner Anchor

	EACH
No. C-02060—UNIVERSAL DRAFTING MACHINE, for drawings up to 18x24 inches, without scales.....	\$37.50
No. C-02061—UNIVERSAL DRAFTING MACHINE, for drawings up to 30x36 inches, without scales.....	37.50
No. C-02062—UNIVERSAL DRAFTING MACHINE, for drawings up to 32x42 inches, without scales.....	37.50

### Hardened Joint Solid Rod Machine with Standard Protractor and Mid Anchor

	EACH
No. B-02065—UNIVERSAL DRAFTING MACHINE, for drawings up to 18x24 inches, without scales.....	\$42.50
No. B-02066—UNIVERSAL DRAFTING MACHINE, for drawings up to 30x36 inches, without scales.....	42.50
No. B-02067—UNIVERSAL DRAFTING MACHINE, for drawings up to 32x42 inches, without scales.....	42.50

### Ball Bearing Tubular Rod Machine with Standard Protractor and Corner Anchor

	EACH
No. C-02070—UNIVERSAL DRAFTING MACHINE, for drawings up to 18x24 inches, without scales.....	\$52.50
No. C-02071—UNIVERSAL DRAFTING MACHINE, for drawings up to 30x36 inches, without scales.....	52.50
No. C-02072—UNIVERSAL DRAFTING MACHINE, for drawings up to 32x42 inches, without scales.....	52.50



## The Universal Drafting Machine—Continued

### Ball Bearing Tubular Rod Machine with Standard Protractor and Mid Anchor

	EACH
No. C-02075—UNIVERSAL DRAFTING MACHINE, for drawings up to 18x24 inches, without scales.....	\$55.00
No. C-02076—UNIVERSAL DRAFTING MACHINE, for drawings up to 30x36 inches, without scales.....	55.00
No. C-02077—UNIVERSAL DRAFTING MACHINE, for drawings up to 32x42 inches, without scales.....	55.00

### Protractors for Architectural and Structural Work

With Solid Rod Machines, corner anchors.....	\$40.00
With Solid Rod Machines, mid anchors.....	45.00
With Tubular Rod Machines, corner anchors.....	55.00
With Tubular Rod Machines, mid anchors.....	57.50

### Civil Engineers' Protractors

With Solid Rod Machines, corner anchors.....	\$66.00
With Solid Rod Machines, mid anchors.....	71.00
With Tubular Rod Machines, corner anchors.....	81.00
With Tubular Rod Machines, mid anchors.....	83.50

### Boxwood Scales (Including Chucking Plate)

No. B-02080—BOXWOOD SCALES, 24-in., white edge.....	\$3.50
No. B-02081—BOXWOOD SCALES, 18-in., white edge.....	2.75
No. B-02082—BOXWOOD SCALES, 12-in., white edge.....	1.75
No. B-02083—BOXWOOD SCALES, 6-in., white edge.....	1.25

Furnished in any of the following divisions:

Style A, 3, 1½, ¾, ⅜ in. to the ft.	Style G, Full size and half size.
Style B, 1, ½, ¼, ⅛ in. to the ft.	Style H, m m and ½ m m.
Style C, 3 and 1½ in. to the ft.	Style J, 10 and 50 parts to the ft.
Style D, ¾ and ⅜ in. to the ft.	Style K, 20 and 40 parts to the ft.
Style E, 1 and ½ in. to the ft.	Style L, 30 and 60 parts to the ft.
Style F, ¼ and ⅛ in. to the ft.	

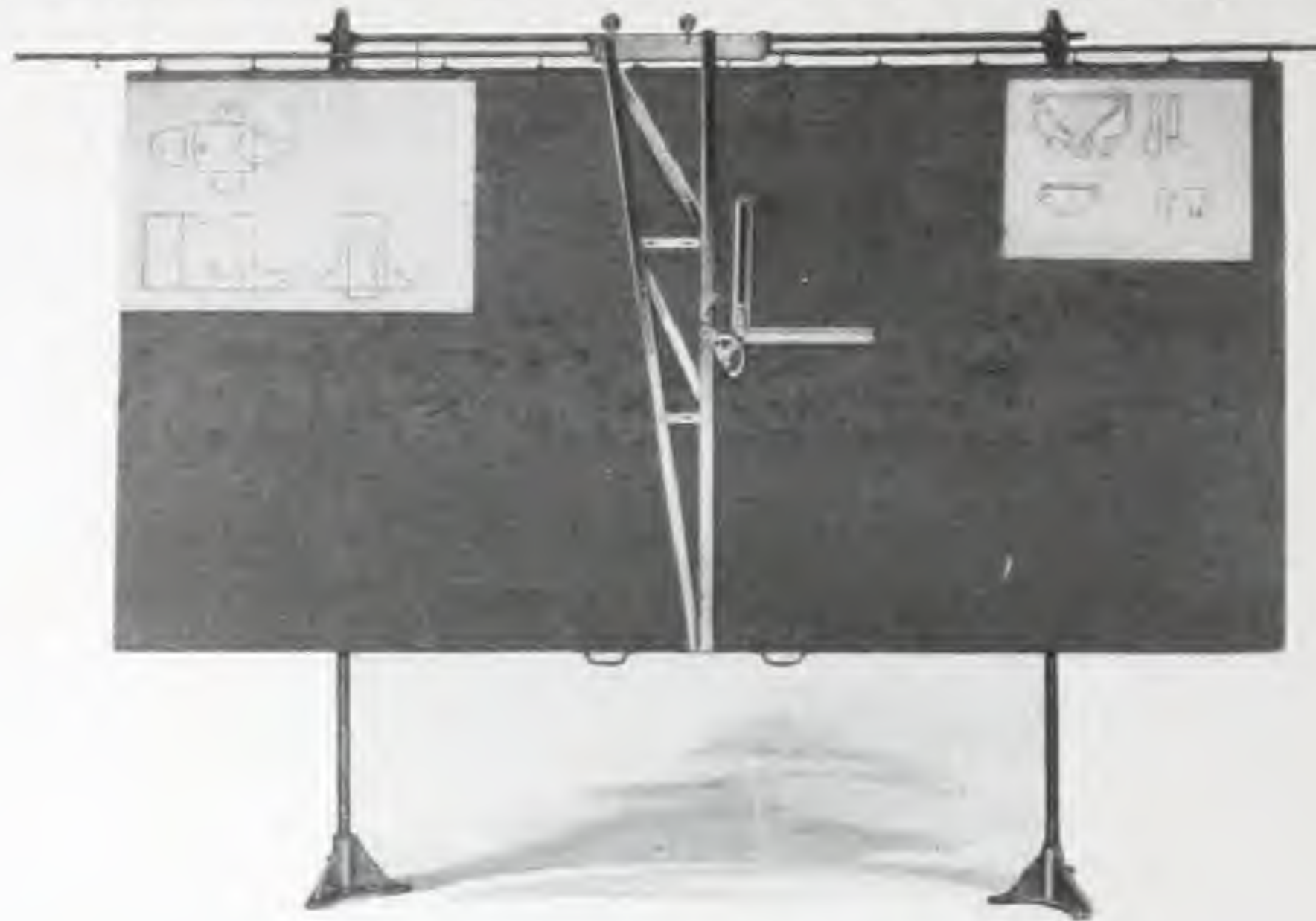
### Straightedges for Inking (Including Chucking Plate)

	EACH
No. B-02084—STRAIGHTEDGE, 36-in., maple edges .....	\$1.75
No. B-02085—STRAIGHTEDGE, 24-in., maple edges .....	1.25
No. B-02086—STRAIGHTEDGE, 18-in., maple edges .....	1.00
No. B-02087—STRAIGHTEDGE, 12-in., maple edges .....	.75
No. B-02090—STRAIGHTEDGE, 36-in., celluloid edges .....	2.75
No. B-02091—STRAIGHTEDGE, 24-in., celluloid edges .....	2.00
No. B-02092—STRAIGHTEDGE, 18-in., celluloid edges .....	1.75
No. B-02093—STRAIGHTEDGE, 12-in., celluloid edges .....	1.50

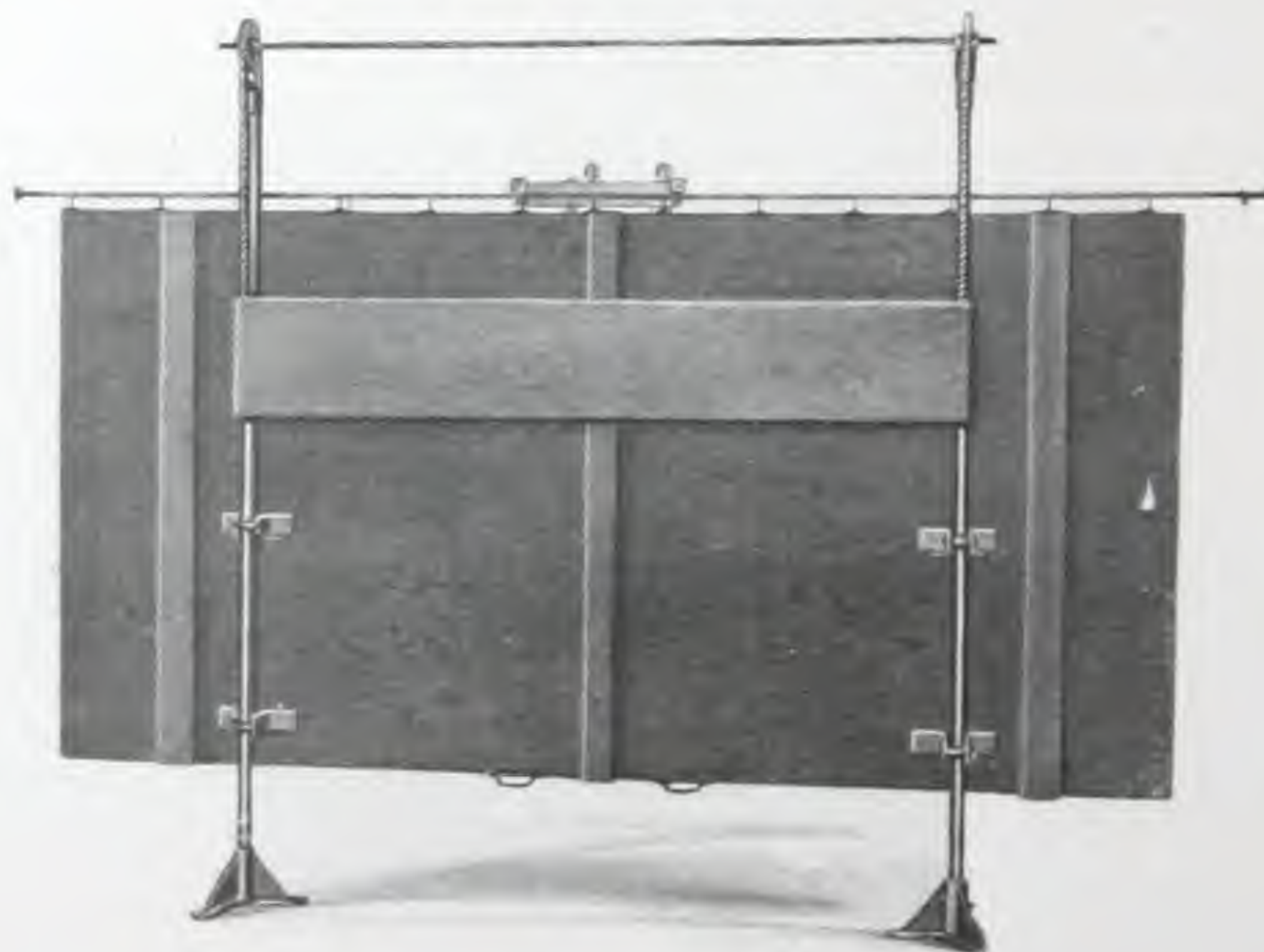


## The Emmert Movable Vertical Board

For Large Assembled Drawings, Full Sized Drawings, Layouts, Etc.



Front view of board



Back view of board

For description and prices, see page 151.



## The Emmert Movable Vertical Board—Continued

**THE EMMERT VERTICAL DRAWING BOARD** is made of best white pine thoroughly glued and surfaced.

The balanced board with the supporting upright posts requires a space only 15 inches and travels vertically a distance of from 4 to 5 feet up and down on the supporting posts. Attached to the back of the drawing board are two sets of brackets with hardwood rollers which move against the supporting upright posts.

The upper set of brackets accommodates two ropes which pass over grooved pulleys and are fastened to a counter-balance consisting of a wooden box which may be filled with any material to balance the weight of the drawing board.

The pulleys are joined by a connecting rod and revolve together, providing an even movement at either end of board.

**THE EMMERT T-SQUARE** with protractor, as shown in cut on page 150, is made in various sizes to fit boards from 48 inches to 132 inches in height, and travels on the track attached to the top of board. Protractor and scales are balanced by sliding weight, and remain at any position set.

	EACH
No. B-02094 —EMMERT VERTICAL BOARD, 60x120 inches, complete.	\$167.75
No. B-02094A—EMMERT VERTICAL BOARD, 66x132 inches, complete.	178.50
No. B-02094B—EMMERT VERTICAL BOARD, 72x144 inches, complete.	192.50
No. B-02094C—EMMERT VERTICAL BOARD, 78x156 inches complete.	218.00
No. B-02094D—EMMERT VERTICAL BOARD, 84x168 inches, complete.	230.00

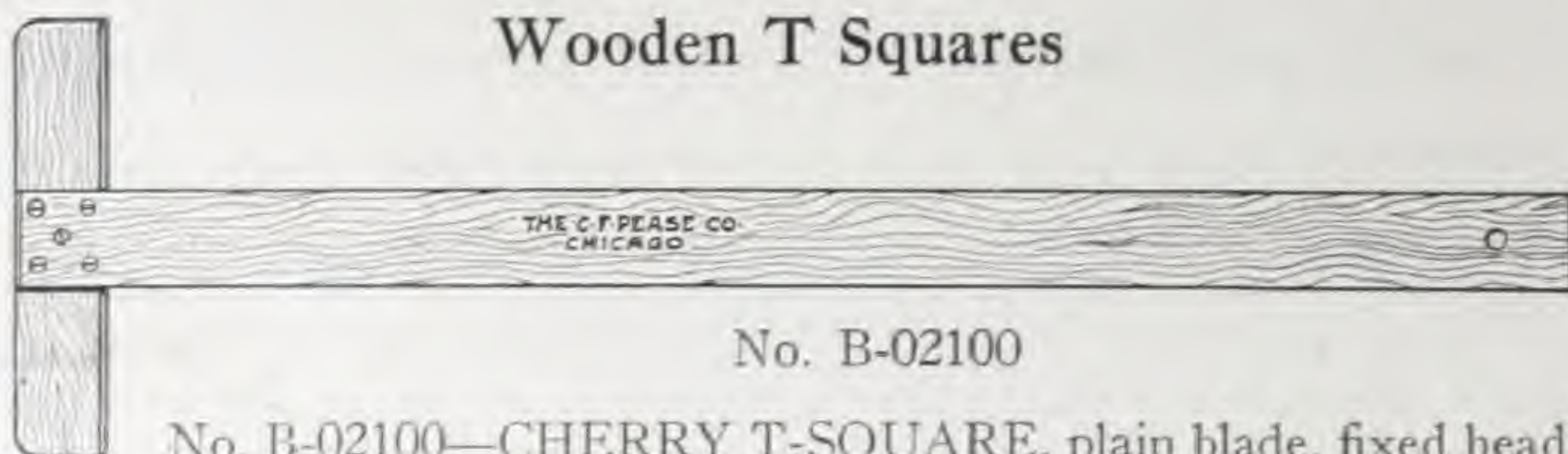
Above prices do not include Scales or Straightedges, which are provided with chucking plates to fit instrument.

**WHITE EDGE SCALES** are carried in stock in all standard graduations. Special graduations to order.

	EACH
No. B-02095 —WHITE EDGE SCALE, 12 inch.	\$2.50
No. B-02095A—WHITE EDGE SCALE, 18 inch.	3.75
No. B-02095B—WHITE EDGE SCALE, 24 inch.	6.00
No. B-02096 —TRANSPARENT EDGE STRAIGHTEDGE, 12 inch.	1.75
No. B-02096A—TRANSPARENT EDGE STRAIGHTEDGE, 18 inch.	2.00
No. B-02096B—TRANSPARENT EDGE STRAIGHTEDGE, 24 inch.	2.50
No. B-02096C—TRANSPARENT EDGE STRAIGHTEDGE, 30 inch.	3.00
No. B-02096D—TRANSPARENT EDGE STRAIGHTEDGE, 36 inch.	3.50

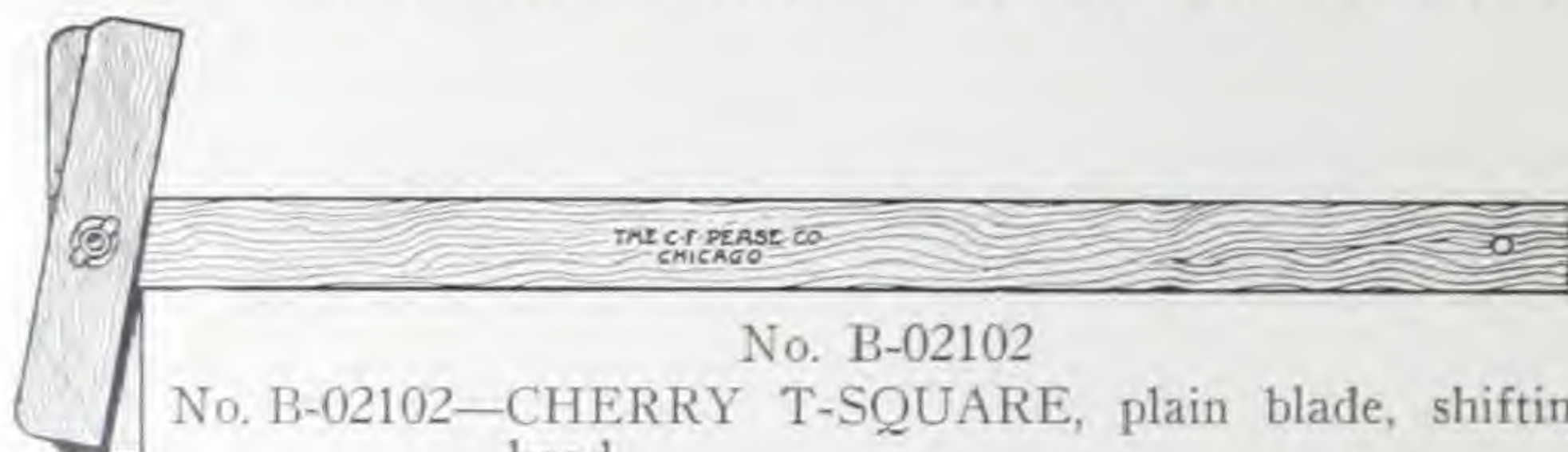


# Wooden T Squares



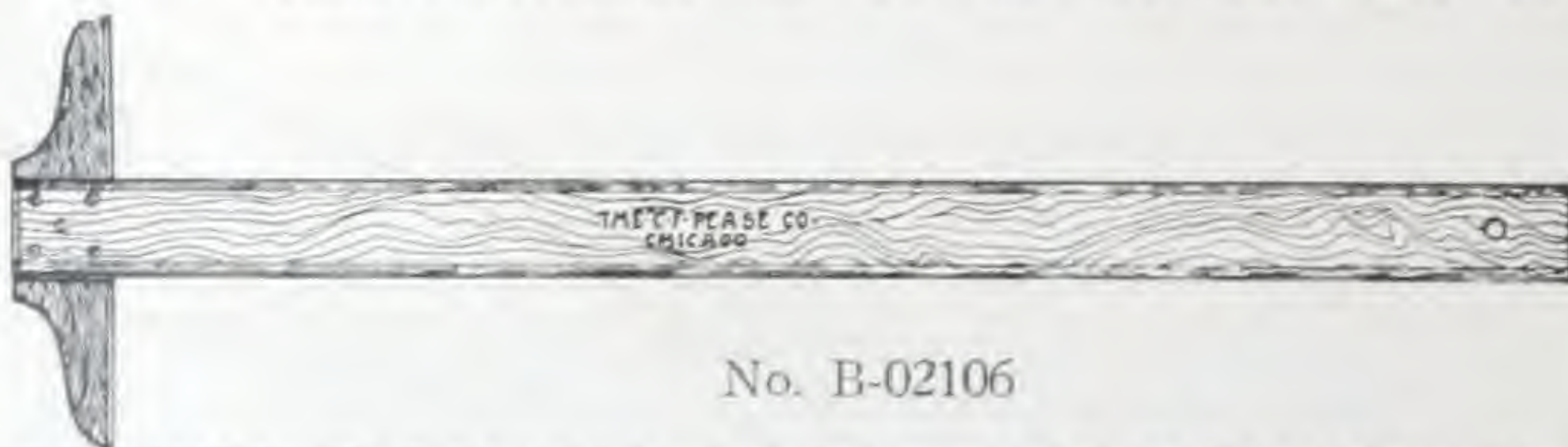
No. B-02100

No. B-02100—CHERRY T-SQUARE, plain blade, fixed head.  
 Size, inches . . . . . 15 18 24 30 36 42 48  
 Each . . . . . \$0.18 .22 .30 .35 .45 .50 .70



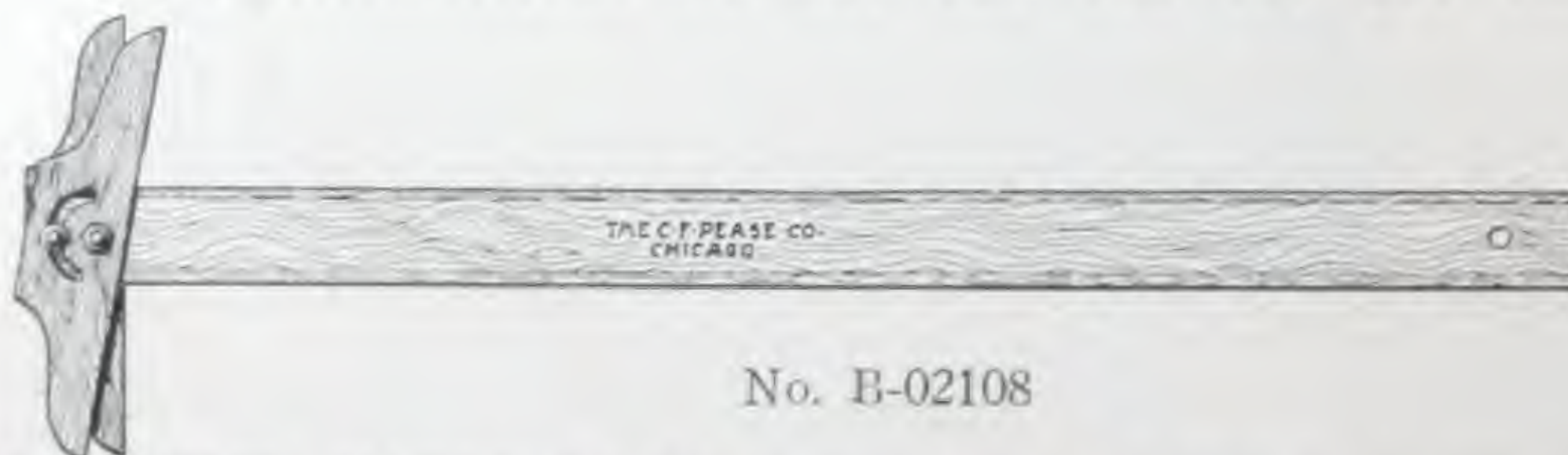
No. B-02102

No. B-02102—CHERRY T-SQUARE, plain blade, shifting head.  
 Size, inches, . . . 15 18 24 30 36 42 48 54  
 Each . . . . . \$0.50 .60 .70 .85 .90 1.05 1.20 1.50



No. B-02106

No. B-02106—HARDWOOD LINED BLADE T-SQUARE, black walnut fixed head.  
 Size, inches . . . . . 24 30 36 42 48 54 60 72  
 Each . . . . . \$0.80 .95 1.15 1.35 1.60 1.90 2.50 3.25

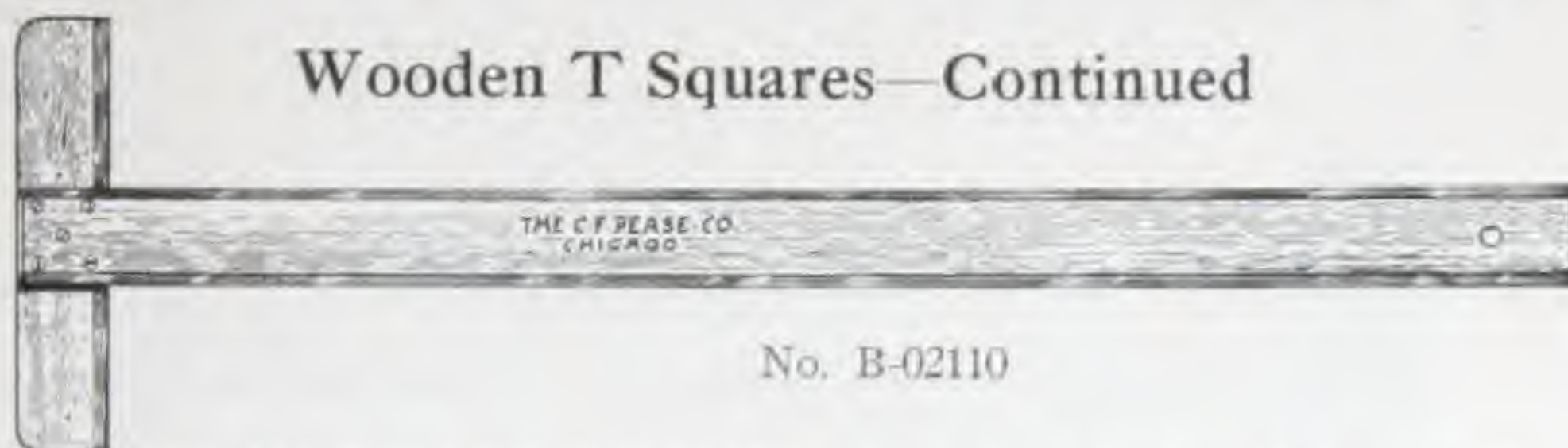


No. B-02108

No. B-02108—HARDWOOD LINED BLADE T-SQUARE, walnut movable head, with two swivels.  
 Size, inches . . . . . 24 30 36 42 48 54 60 72  
 Each . . . . . \$1.45 1.60 1.80 2.00 2.35 2.75 3.25 4.25



## Wooden T Squares—Continued



No. B-02110

No. B-02110—MAHOGANY T-SQUARE, ebony lined blade and fixed head.

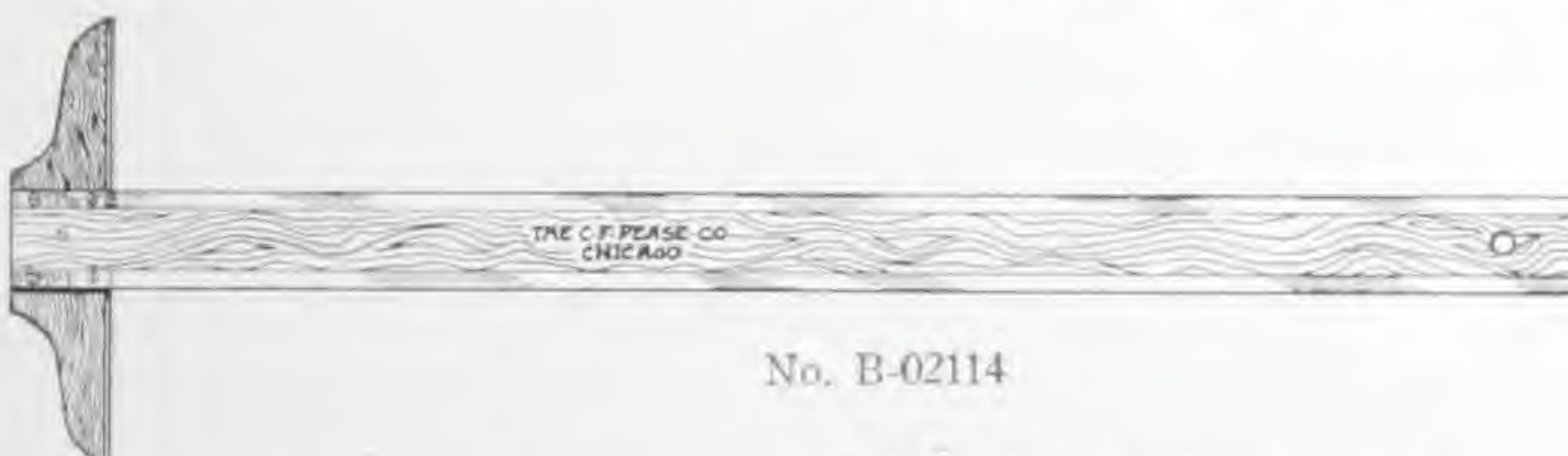
Size, inches	24	30	36	42	48	54	60
Each	\$1.00	1.20	1.45	1.70	2.00	2.40	3.00



No. B-02112

No. B-02112—MAHOGANY T-SQUARE, ebony lined blade, and movable head, with two nickel plated swivels.

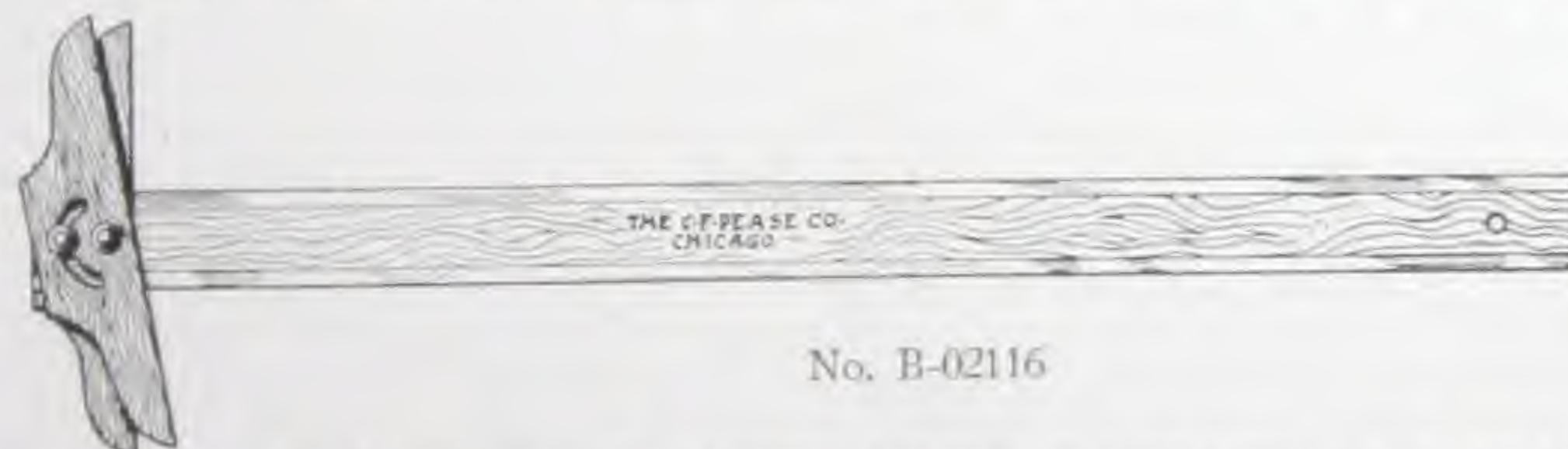
Size, inches	24	30	36	42	48	54	60
Each	\$1.80	2.05	2.35	2.65	3.00	3.50	4.15



No. B-02114

No. B-02114—TRANSPARENT AMBER LINED T-SQUARE, maple blade, black walnut fixed head.

Size, inches	18	24	30	36	42	48	54	60
Each	\$1.20	1.60	1.90	2.25	2.65	3.25	4.25	5.25



No. B-02116

No. B-02116—TRANSPARENT AMBER LINED T-SQUARE, maple blade, black walnut shifting double head, with two nickel plated swivels.

Size, inches	18	24	30	36	42	48	54	60
Each	\$2.00	2.55	2.90	3.35	3.75	4.35	5.50	6.50



## Wooden T Squares—Continued



No. B-02118

No. B-02118—MAHOGANY T-SQUARE, Ebony Lined and tapered blade, fixed head, and beveled edge.

Size, inches	30	36	42	48	54
Each	\$1.35	1.65	1.90	2.20	2.65

## Draftsmen's Steel T Squares



No. B-02120

No. B-02120—STEEL T-SQUARE, nickel plated, fixed japanned iron head.

Size, inches	18	24	30	36	42
Each	\$3.60	4.25	5.50	6.50	8.00

No. B-02122—STEEL T-SQUARE, nickel plated, movable japanned iron head.

Size, inches	18	24	30	36	42
Each	\$5.20	5.75	7.00	8.00	9.00

## Splines

Size, inches	24	30	36	42	48	60
No. B-02125—PEARWOOD SPLINES. Each	\$0.20	.25	.30	.35	.40	.50
No. B-02127—TRANSPARENT SPLINES. Each	.45	.50	.55	.60	.65	

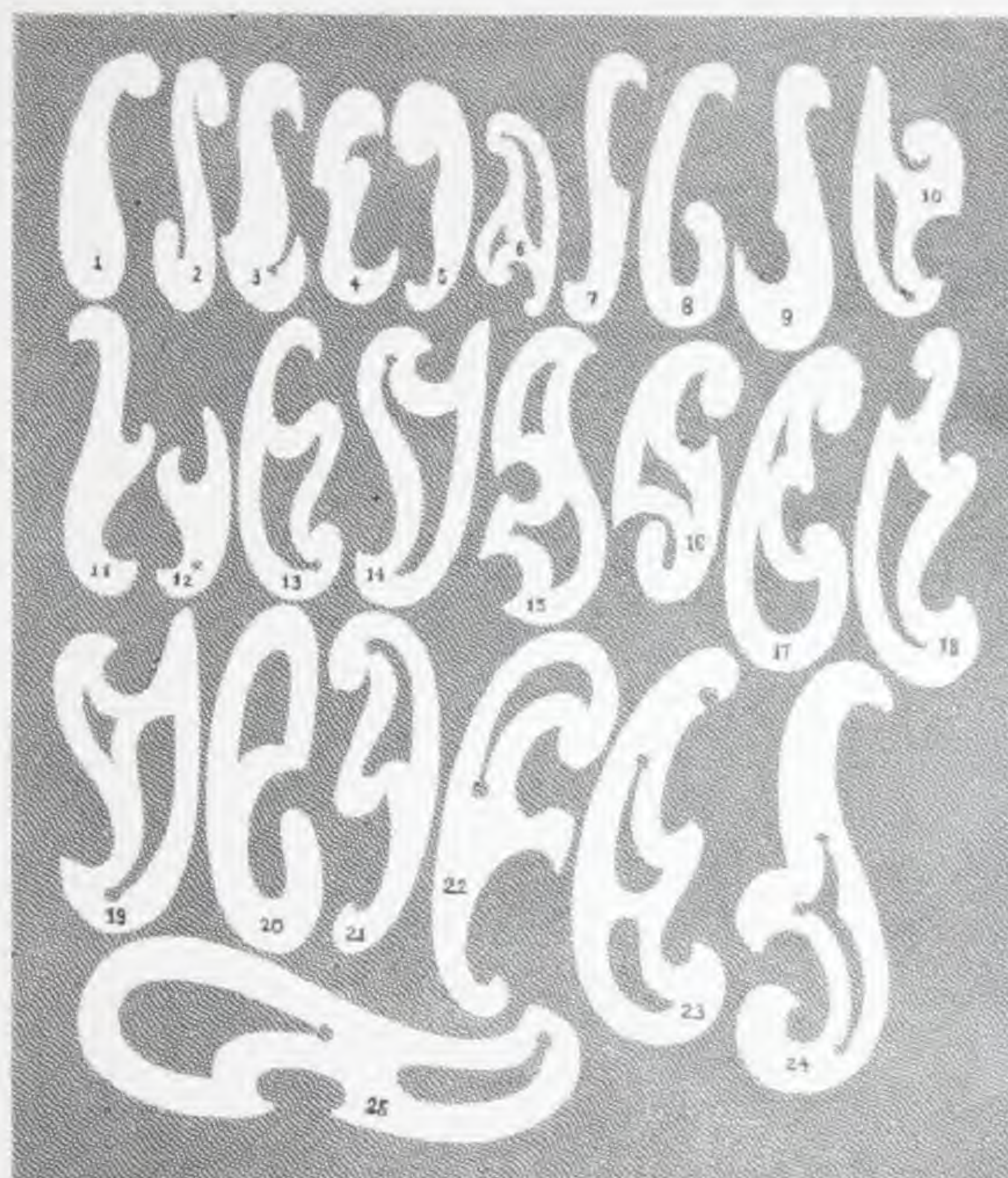
## Weights for Splines



No. B-02128—SPLINE WEIGHTS, with finger, iron, weight 3½ lbs.	EACH \$1.75
No. B-02129—SPLINE WEIGHTS, with finger, lead, weight 5 lbs.	2.00



# Irregular Curves



Nos.	1	2	3	4	5	6	7	8	9
Inches	7	6½	6¼	7	6½	5½	10	8½	8¾
No. B-02136—PEARWOOD, each	\$.12	.15	.15	.18	.18	.20	.20	.20	.20
No. B-02138—TRANSPARENT, each	.35	.35	.40	.40	.40	.40	.45	.45	.45
Nos.	10	11	12	13	14	15	16	17	
Inches	6¾	9	7	8	9	9	8	10	
No. B-02136—PEARWOOD, each	\$.25	.20	.15	.25	.25	.25	.25	.30	
No. B-02138—TRANSPARENT, each	.50	.45	.40	.60	.65	.65	.60	.90	
Nos.	18	19	20	21	22	23	24	25	
Inches	11	11	11	11½	12	12	13	17	
No. B-02136—PEARWOOD, each	\$.30	.30	.30	.30	.30	.35	.40	.45	
No. B-02138—TRANSPARENT, each	.90	.90	.90	.85	.95	.85	1.05	1.50	



## Irregular Curves—Continued

No. B-02138G—GREEN TRANSPARENT CURVES.

	EACH		EACH
Style 6.....	\$0.45	Style 16.....	\$0.60
Style 10.....	.50	Style 19.....	.90
Style 11.....	.60	Style 21.....	.90
Style 13.....	.60	Style 23.....	1.00
Style 14.....	.60	Style 24.....	1.00
Style 15.....	.60	Style 25.....	1.50

For illustrations, see page 155.



No. B-02140

No. B-02139—LOGARITHMIC SPIRAL CURVE, transparent.....	EACH \$1.75
No. B-02140—COMBINATION CURVE, transparent.....	1.00



No. B-02141

No. B-02141—COMBINATION CURVE, transparent.....	EACH \$1.75
---	-------------

## The Pease Adjustable Curve Ruler



No. B-02142

This ruler is entirely covered with rubber, giving two working edges. It will hold any desired curve made and is a practicable and reliable instrument.

No. B-02142 —PEASE ADJUSTABLE CURVE RULER, 12 inches....	EACH \$1.00
No. B-02142A—PEASE ADJUSTABLE CURVE RULER, 24 inches....	1.75



# Adjustable Curve Rulers—Continued



No. B-02143

EACH

No. B-02143—ADJUSTABLE CURVE RULER, 14½ in. long. \$2.25



No. B-02144

EACH

No. B-02144—ADJUSTABLE CURVE RULER, 30 in. long. \$3.75



No. B-02146

EACH

No. B-02145—ADJUSTABLE CURVE RULER, cheaper construction, 12 in. long. \$1.00

No. B-02146—ADJUSTABLE CURVE RULER, cheaper construction, 24 in. long. 1.75



No. B-02148



EACH

No. B-02147—ADJUSTABLE CURVE RULER, double edge, 7 in. long. \$0.45

No. B-02148—ADJUSTABLE CURVE RULER, double edge, 15 in. long. .95

No. B-02149—ADJUSTABLE CURVE RULER, double edge, 31 in. long. 1.75



# Copenhagen Ship Curves

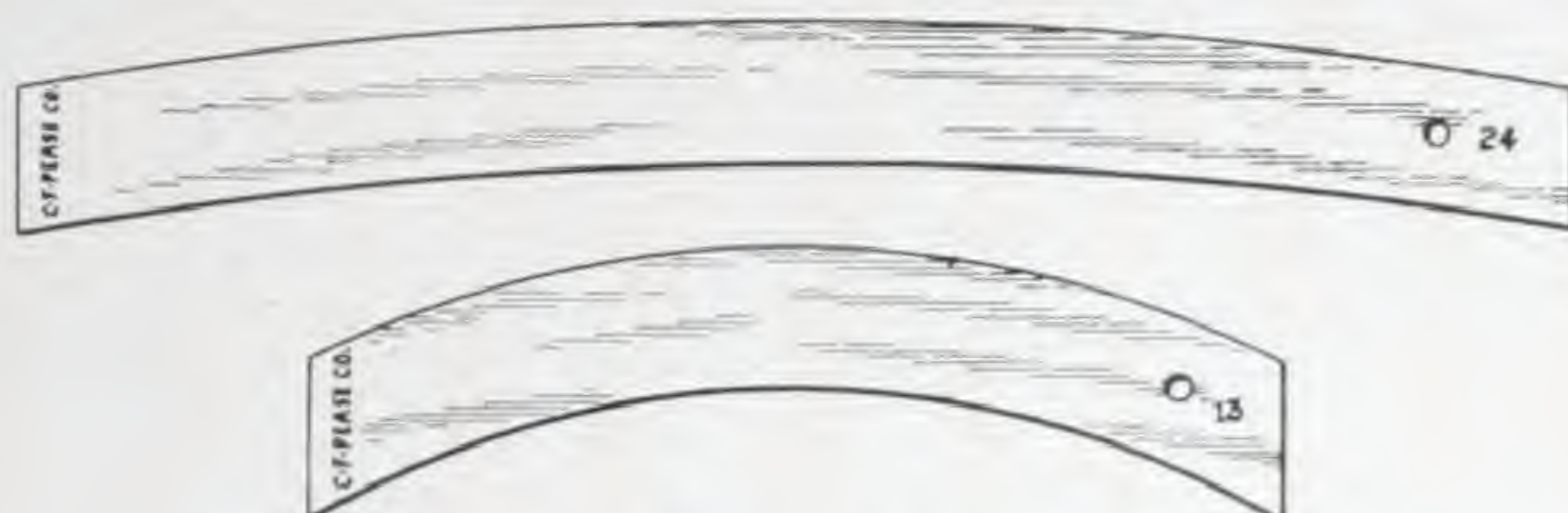


No. B-02160—WOODEN SHIP CURVES, set of above 45 curves, in case. \$16.50  
 No. B-02163—TRANSPARENT SHIP CURVES, set of above 45 curves,  
 in case 31.50



## Railroad Curves

In Wood Case



### Pearwood

No. B-02165—RAILROAD CURVES, 10 in set—12, 24, 36, 48, 60, 72, 84, 96, 108, 120 in. radius.....	SET \$ 5.00
No. B-02167—RAILROAD CURVES, 17 in set—12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60 in. radius.....	8.00
No. B-02169—RAILROAD CURVES, 24 in set—2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8, 8½, 9, 9½, 10, 12, 14, 16, 18, 20, 22, 24 in. radius.....	12.00
No. B-02171—RAILROAD CURVES, 43 in set—3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8, 8½, 9, 9½, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 42, 48, 54, 60, 66, 72, 78, 84, 90, 100, 110, 120, 130, 140, 160, 180, 200 in. radius.....	18.50
RAILROAD CURVES, single.....	Each .60

### Hard Rubber

No. B-02177—RAILROAD CURVES, set of 10—12, 24, 36, 48, 60, 72, 84, 96, 108, 120 in. radius.....	SET \$ 6.50
No. B-02178—RAILROAD CURVES, set of 17—12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60 in. radius.....	12.00
No. B-02179—RAILROAD CURVES, set of 24—2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8, 8½, 9, 9½, 10, 12, 14, 16, 18, 20, 22, 24 in. radius.....	17.00
No. B-02180—RAILROAD CURVES, set of 43—3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8, 8½, 9, 9½, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 42, 48, 54, 60, 66, 72, 78, 84, 90, 100, 110, 120, 130, 140, 160, 180, 200 in. radius.....	25.00
RAILROAD CURVES, single.....	Each .80

### Metal

No. B-02186—RAILROAD CURVES, 10 in set—12, 24, 36, 48, 60, 72, 84, 96, 108, 120 in. radius.....	SET \$ 6.00
No. B-02187—RAILROAD CURVES, 17 in set—12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 48, 51, 54, 57, 60 in. radius.....	10.80
RAILROAD CURVES, single.....	Each .80



## Railroad Curves—Continued

In Wood Cases

### Transparent Celluloid

	SET
No. B-02190—RAILROAD CURVES, 10 in set—12, 24, 36, 48, 60, 72, 84, 96, 108, 120 inch radius.....	\$ 9.50
No. B-02191—RAILROAD CURVES, 17 in set—12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60 inch radius .....	15.00
No. B-02192—RAILROAD CURVES, 30 in set—1½, 2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 35, 40, 45, 50, 60 inch radius .....	26.50
	EACH
RAILROAD CURVES, single.....	\$ 1.10

### Hard Rubber

No. B-02188—RAILROAD CURVES, with Tangent, 41 in set.  
Marked in degrees and inches to 100 foot scale.

0°.30' = 114.59 in.	3°.30' = 16.37 in.	6° = 9.55 in.	8°.30' = 6.75 in.
1° = 57.30 in.	3°.45' = 15.28 in.	6°.15' = 9.17 in.	8°.45' = 6.55 in.
1°.15' = 45.84 in.	4° = 14.33 in.	6°.30' = 8.82 in.	9° = 6.37 in.
1°.30' = 38.20 in.	4°.15' = 13.48 in.	6°.45' = 8.49 in.	9°.15' = 6.20 in.
1°.45' = 32.74 in.	4°.30' = 12.73 in.	7° = 8.19 in.	9°.30' = 6.04 in.
2° = 28.65 in.	4°.45' = 12.07 in.	7°.15' = 7.91 in.	9°.45' = 5.88 in.
2°.15' = 25.47 in.	5° = 11.46 in.	7°.30' = 7.64 in.	10° = 5.74 in.
2°.30' = 22.92 in.	5°.15' = 10.92 in.	7°.45' = 7.40 in.	10°.30' = 5.48 in.
2°.45' = 20.84 in.	5°.30' = 10.42 in.	8° = 7.17 in.	11° = 5.22 in.
3° = 19.10 in.	5°.45' = 9.97 in.	8°.15' = 6.95 in.	11°.30' = 4.99 in.
3°.15' = 17.63 in.			

Per set .....	\$30.00
RAILROAD CURVES, with Tangent, single. Each.....	1.00



## Railroad Curves—Continued In Wood Case

### Transparent Celluloid

No. B-02193—RAILROAD CURVES, with Tangent, 41 in set,  
marked in degrees and inches to 100 foot scale:

0°.30' = 114.59 in.	3°.30' = 16.37 in.	6°.00' = 9.55 in.	8°.30' = 6.75 in.
1°.00' = 57.30 in.	3°.45' = 15.28 in.	6°.15' = 9.17 in.	8°.45' = 6.55 in.
1°.15' = 45.84 in.	4°.00' = 14.33 in.	6°.30' = 8.82 in.	9°.00' = 6.37 in.
1°.30' = 38.20 in.	4°.15' = 13.48 in.	6°.45' = 8.49 in.	9°.15' = 6.20 in.
1°.45' = 32.74 in.	4°.30' = 12.73 in.	7°.00' = 8.19 in.	9°.30' = 6.04 in.
2°.00' = 28.65 in.	4°.45' = 12.07 in.	7°.15' = 7.91 in.	9°.45' = 5.88 in.
2°.15' = 25.47 in.	5°.00' = 11.46 in.	7°.30' = 7.64 in.	10°.00' = 5.74 in.
2°.30' = 22.92 in.	5°.15' = 10.92 in.	7°.45' = 7.40 in.	10°.30' = 5.48 in.
2°.45' = 20.84 in.	5°.30' = 10.42 in.	8°.00' = 7.17 in.	11°.00' = 5.22 in.
3°.00' = 19.10 in.	5°.45' = 9.97 in.	8°.15' = 6.95 in.	11°.30' = 4.99 in.
3°.15' = 17.63 in.			

Per set ..... \$42.00

No. B-02195—RAILROAD CURVES, with Tangent, 55 in set,  
marked in degrees and inches to 100 foot scale:

0°.15' = 229.18 in.	3°.45' = 15.28 in.	7°.15' = 7.91 in.	11°.30' = 4.99 in.
0°.30' = 114.59 in.	4°.00' = 14.33 in.	7°.30' = 7.64 in.	12°.00' = 4.78 in.
0°.45' = 76.39 in.	4°.15' = 13.48 in.	7°.45' = 7.40 in.	12°.30' = 4.59 in.
1°.00' = 57.30 in.	4°.30' = 12.73 in.	8°.00' = 7.17 in.	13°.00' = 4.42 in.
1°.15' = 45.84 in.	4°.45' = 12.07 in.	8°.15' = 6.95 in.	13°.30' = 4.25 in.
1°.30' = 38.20 in.	5°.00' = 11.46 in.	8°.30' = 6.75 in.	14°.00' = 4.10 in.
1°.45' = 32.74 in.	5°.15' = 10.92 in.	8°.45' = 6.55 in.	14°.30' = 3.96 in.
2°.00' = 28.65 in.	5°.30' = 10.42 in.	9°.00' = 6.37 in.	15°.00' = 3.83 in.
2°.15' = 25.47 in.	5°.45' = 9.97 in.	9°.15' = 6.20 in.	16°.00' = 3.59 in.
2°.30' = 22.92 in.	6°.00' = 9.55 in.	9°.30' = 6.04 in.	17°.00' = 3.38 in.
2°.45' = 20.84 in.	6°.15' = 9.17 in.	9°.45' = 5.88 in.	18°.00' = 3.20 in.
3°.00' = 19.10 in.	6°.30' = 8.82 in.	10°.00' = 5.74 in.	19°.00' = 3.03 in.
3°.15' = 17.63 in.	6°.45' = 8.49 in.	10°.30' = 5.48 in.	20°.00' = 2.88 in.
3°.30' = 16.37 in.	7°.00' = 8.19 in.	11°.00' = 5.22 in.	

Per set ..... \$54.00

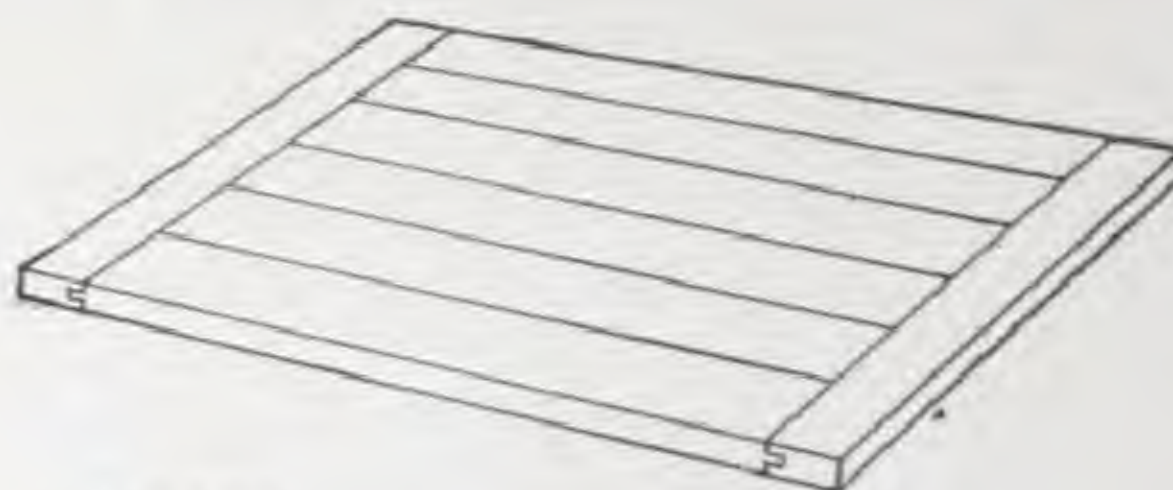
RAILROAD CURVES, with Tangent, single..... Each \$1.35



## Drawing Boards

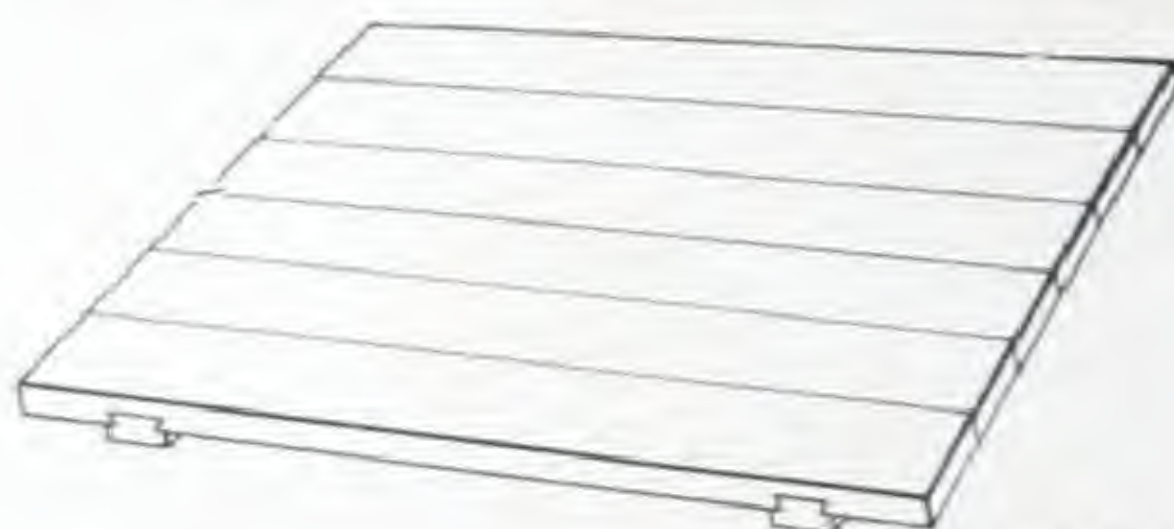
Made of selected and thoroughly seasoned wood.  
Best workmanship.

DRAWING BOARDS, side  
ledges and flush both sides.



B-02200

	Size, inches	12x17	16x22	20x24½	23x31	31x42
No. B-02200—PINE, each		\$0.65	\$0.95	\$1.15	\$1.75	\$3.50
No. B-02201—BASSWOOD, each		.55	.80	.95	1.45	2.75

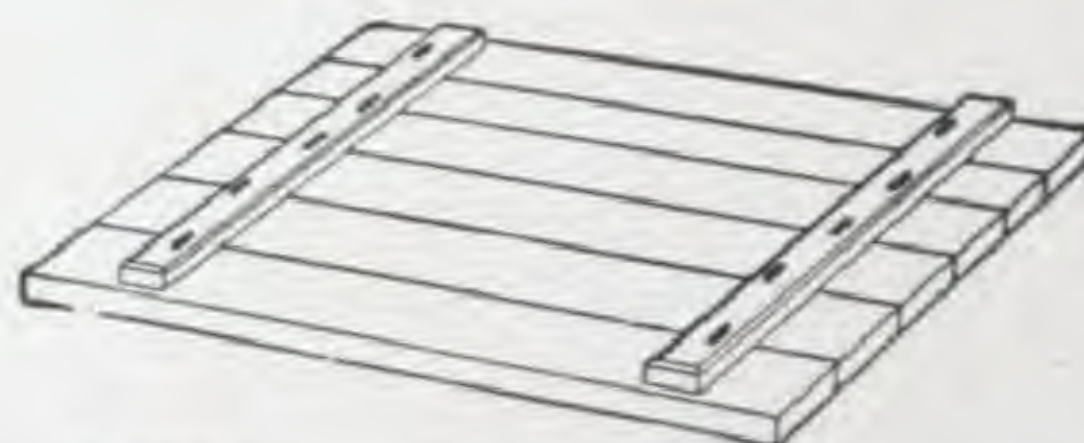


No. B-02202

No. B-02202—DRAWING  
BOARD, PINE, with ledges  
dovetailed into back to allow  
for contraction and expansion.

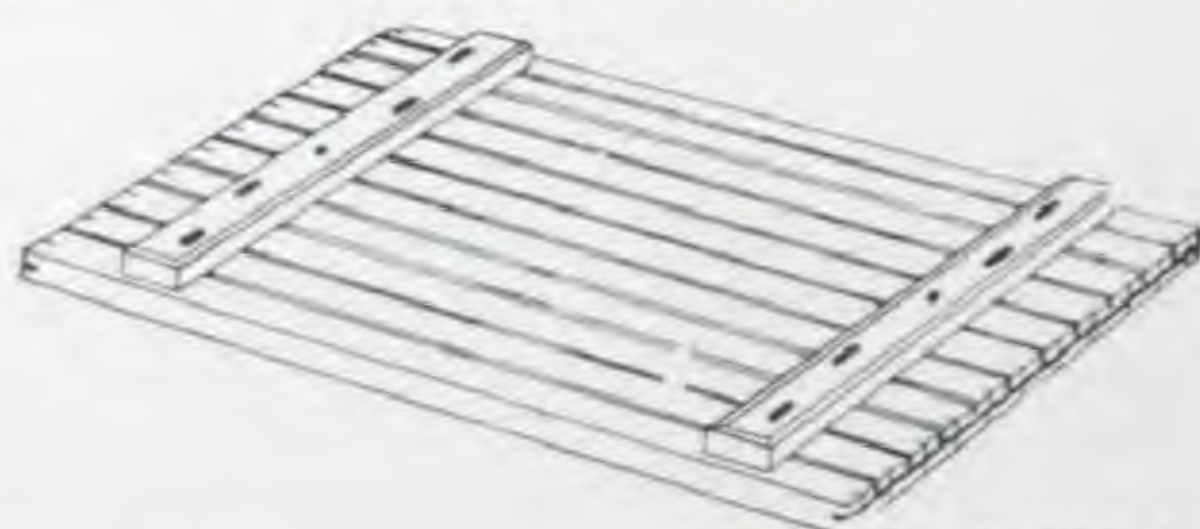
Size, inches	20x26	23x31	31x42
Each	\$1.75	\$2.50	\$4.30

No. B-02204—DRAWING  
BOARD, PINE, hardwood  
ledges, screws with oval  
washers to allow for con-  
traction and expansion.



No. B-02204

Size, inches	23x31	31x42
Each	\$3.25	\$5.00



No. B-02212

No. B-02212—DRAWING  
BOARD, PINE, with screws  
passing through the ledges in  
slots with metal bushings,  
which allow the screws to  
move when drawn by the  
contraction of the board.  
The end of board is secured  
with hardwood strips cut in.

Size, inches	23x31	31x42
Each	\$4.00	\$6.50



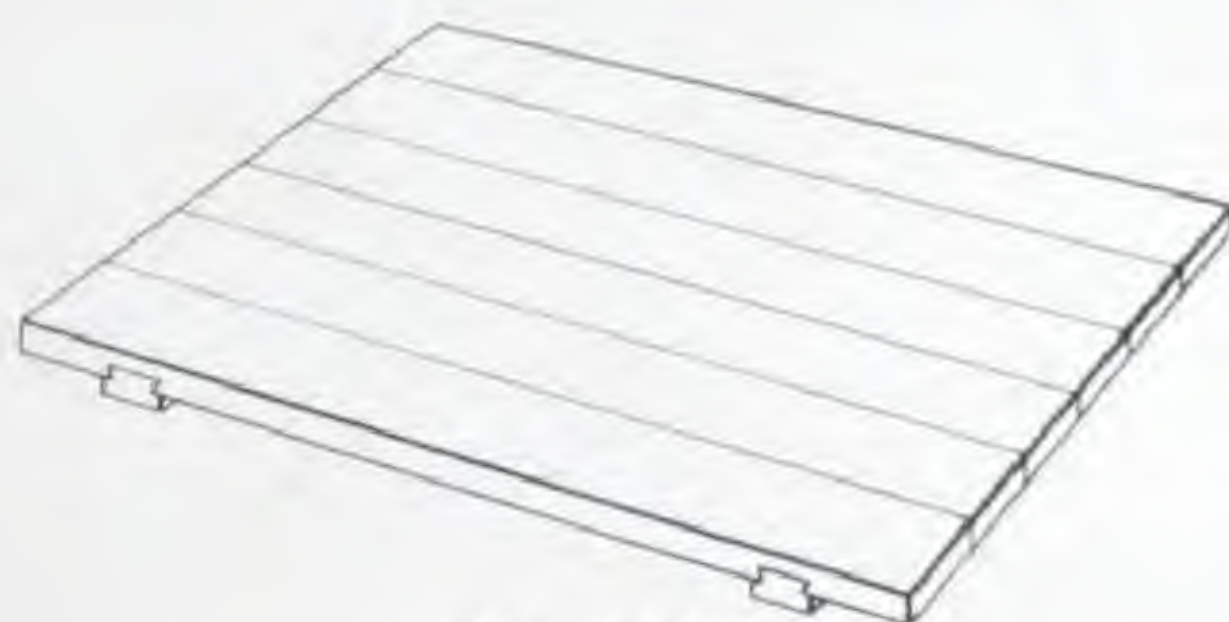
## Large Drawing Boards



No. B-02214

No. B-02214—DRAWING BOARD, PINE, tongue and groove construction.

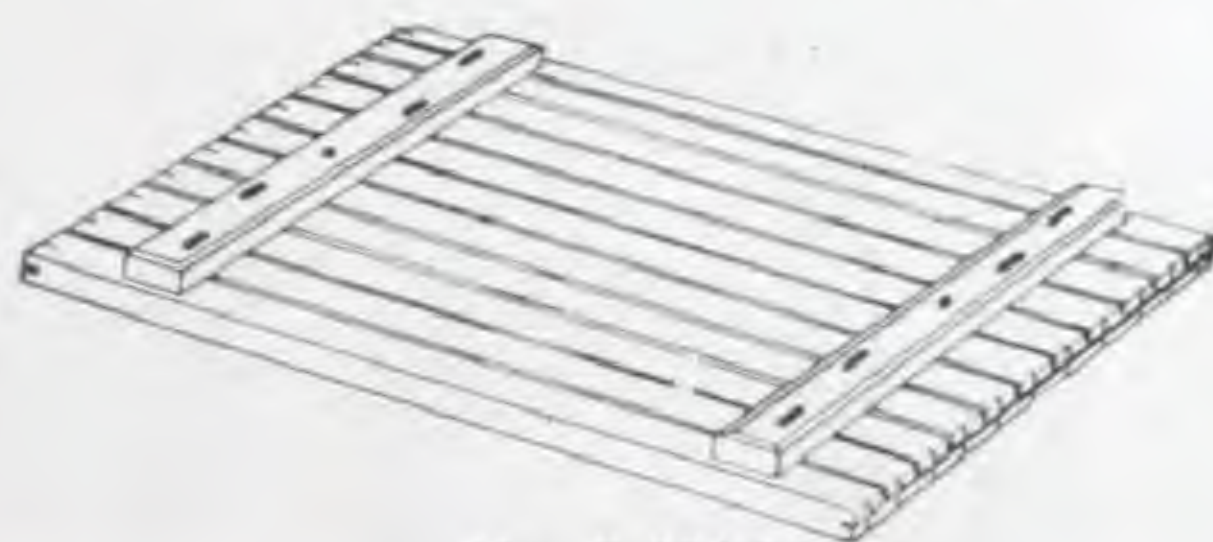
Size	Each	Size	Each
36 x 48 x 1 $\frac{1}{8}$ .....	\$ 7.00	42 x 72 x 1 $\frac{3}{8}$ .....	\$16.00
36 x 54 x 1 $\frac{1}{8}$ .....	8.00	42 x 84 x 1 $\frac{3}{8}$ .....	20.00
36 x 60 x 1 $\frac{1}{8}$ .....	10.00	42 x 96 x 1 $\frac{3}{8}$ .....	22.00
36 x 72 x 1 $\frac{3}{8}$ .....	14.00	48 x 84 x 1 $\frac{3}{8}$ .....	22.00
42 x 60 x 1 $\frac{3}{8}$ .....	14.00	48 x 96 x 1 $\frac{3}{8}$ .....	26.00



No. B-02216

No. B-02216—DRAWING BOARD, PINE, with hardwood ledges dovetailed into board.

Size, inches	36x55x1	42x60x1	48x72x1 $\frac{1}{4}$
Each	\$9.50	\$11.50	\$16.50



No. B-02218

No. B-02218—DRAWING BOARD, PINE, with screws passing through hardwood ledges in oblong slots with metal bushings which allow the screws to move when drawn by contraction of the board. To make working edge perfectly smooth, a strip of hardwood is set in the edge of board. This strip is sawed apart at intervals to allow for contraction.

Size, inches	36x55x1	42x60x1	48x72x1 $\frac{1}{4}$
Each	\$11.00	\$13.00	\$18.50

Drawing Boards Nos. B-02216 and B-02218 have a series of grooves cut in the back of the board, taking the transverse strength out of the wood.



## Wooden Horses For Drawing Boards



No. B-02222

37 inches high, 38 inches long

	PAIR
No. B-02220—WOODEN HORSES, PINE, without slanting top.	\$3.25
No. B-02222—WOODEN HORSES, PINE, with slanting top.	5.50



No. B-02227

	PAIR
No. B-02227—WOODEN HORSES, PINE, top adjustable to any slope or level.	\$7.50





No. B-02241 Drawing Stand

A convenient and light stand, adjustable from 30 to 37 inches in height. Holds drawing board, which can be set at desired angle. Made of hardwood.

Price .....\$5.00

For Drawing Boards see page 162.

No. B-02241

No. B-02243 Drawing Stand

Made of hardwood with white pine top. Adjustable from 33 to 42 inches in height. Top can be set at desired angle.

**Prices:**

SIZE OF BOARD	EACH
23x31 inches..	\$ 8.00
31x42 inches..	10.00
33x55 inches..	13.00
36x60 inches..	20.00
48x72 inches..	27.00



No. B-02243



## Drawing Tables

### No. B-02245—DRAWING TABLE.

Adjustable as to height and slant. Made of hardwood. Very firm and rigid and does not allow the slightest vibration.

SIZE	EACH
No. B-02245—24x32 inches . . . .	\$6.00
32x42 inches . . . .	7.00
37x48 inches . . . .	8.00

No. B-02245A—Tool Cabinet. . . \$2.00



No. B-02245

### No. B-02247—DRAWING TABLE.

This table has a hardwood frame with iron legs. It can be raised and lowered from 32 to 40 inches. The raising, lowering and tilting is done by means of hand wheels on the right-hand side, and when tightened the table is very rigid. Soft wood top.

SIZE	EACH
No. B-02247—32x42 inches. . .	\$12.00
37x48 inches. . .	16.00
37x60 inches. . .	20.00
42x72 inches. . .	25.00
42x84 inches. . .	31.50
42x96 inches. . .	36.00
48x120 inches. . .	49.00

Extras

No. B-02247A—Foot Rest. . \$1.50

No. B-02247B—Swing Tray. . 2.00

No. B-02247C—Swing Drawer and Tray. 3.00



No. B-02247

### No. B-02248—DRAWING TABLE.

Adjustable as to height and slant. A substantial table which will give the extreme in satisfaction. Made of hardwood with white pine top.

SIZE	EACH
No. B-02248—31x42 inches. . .	\$10.00
33x55 inches. . .	13.50
36x60 inches. . .	20.00
48x72 inches. . .	27.00



No. B-02248



## Drawing Tables—Continued

No. B-02250—DRAWING TABLE. Iron base. Adjustable for height and any angle.



Style A

Style A.—Plain.

Style B.—With swing tray and drawer and foot rest.

Style C.—With swing tray and drawer, cabinet and foot rest.



Style B

SIZE	STYLE A	STYLE B	STYLE C
32x42 inches.....	\$15.00	\$25.00	\$37.00
37x48 inches.....	20.00	30.00	42.00
37x60 inches.....	25.00	35.00	47.00
42x72 inches.....	30.00	40.00	52.00
42x84 inches.....	37.00	46.00	59.00



Style C

Separate attachments when not part of equipment:

FOOT REST ..... \$1.50

SWING TRAY..... 2.50

SWING DRAWER and  
Tray ..... 4.00

CABINET, 12x16x30 in.,  
3 drawers ..... 12.00



## Drawing Tables—Continued



No. B-02251

### No. B-02251—DRAWING TABLE.

TILTING ADJUSTMENT—From horizontal to vertical.

VERTICAL ADJUSTMENT—Rack and pinion, from 30 to 42 inches.

TOPS—Sizes from 31x42 inches to 48x72 inches. Made of selected soft white pine with heavy oak cleats on back.

BASES—Best gray iron castings finished with two coats of baked enamel, and made in proportion to length of tops.

SHIPPING WEIGHT—About 120 pounds plus 4 pounds per square foot of top.

SIZE OF BOARD	EACH	SIZE OF BOARD	EACH
31 x 42 inches.....	\$25.00	37 x 72 inches.....	\$37.00
37 x 48 inches.....	29.50	43 x 60 inches.....	36.50
37 x 54 inches.....	31.00	43 x 72 inches.....	39.00
37 x 60 inches.....	32.50	48 x 72 inches.....	43.00

### Extras

	EACH
No. B-02251A—SWINGING DRAWER, 7½x13x3½, with tray top .....	\$3.50
No. B-02251B—CABINET, with two drawers, 7½x13x3½....	4.00
No. B-02251C—CABINET, with three drawers, 7½x13x3½....	6.00



## Drawing Tables—Continued



No. B-02253

### No. B-02253—DRAWING TABLE.

TILTING ADJUSTMENT—From horizontal to vertical.

VERTICAL ADJUSTMENT—Rack and pinion from 30 to 42 inches.

TOPS—Sizes from 37x48 inches to 43x72 inches. Made of selected soft white pine with heavy oak cleats on back.

BASES—Best gray iron castings finished with two coats of baked enamel, and made in proportion to length of tops.

SHIPPING WEIGHT—About 100 pounds plus 4 pounds per square foot of top.

SIZE OF BOARD	EACH	SIZE OF BOARD	EACH
37x48 inches.....	\$28.00	37x72 inches.....	\$36.00
37x54 inches.....	30.00	43x60 inches.....	36.50
37x60 inches.....	34.00	43x72 inches.....	38.00

### Extras

No. B-02253A—DRAWER with tray on removable arm. Dimensions of drawer, 8x12x3 inches. Each.....\$3.00

No. B-02253B—DRAWER under board, with key. Dimensions of drawer, 18x24x2 inches. Each.....2.50



## Drawing Tables—Continued



No. B-02254

### No. B-02254—DRAWING TABLE.

Made entirely of steel with exception of top.

Finished in black enamel. Board shellacked on bottom side.

Adjustable as to height and angle of top.

Furnished with drawer 3½ inches in depth.

	EACH
Size 40x52 .....	\$30.00
Size 48x72 .....	35.00

Above prices do not include parallel ruling attachment shown in cut. For prices see page 147.



## Hi-Low Adjustable Drawing Tables



The **Hi-Low** is adjustable—adjustable in every sense of the word. Every adjustment can be made from the seat.

**To swing the Board:** Loosen the Clamp Lever one-half turn and the Board may be turned to any position in the radius of a circle. This makes it possible at all times to take advantage of the best source of light.

**To raise the Board:** Loosen the Clamp Lever and turn the Hand Wheel to the right. In this manner the Board may be raised any height from 36 inches to 44 inches above the floor.

**To tilt the Board:** Loosen the Hand Clamp (at either end of the Board) and the Board may then be tilted to any angle from a horizontal to a vertical position.

The **Foot Rest** is also adjustable.

By looking at the cut on next page, giving a back view of the Hi-Low and its operating parts, you will note how simply the table is operated.





Back View

## Hi-Low Adjustable Drawing Tables

—Continued

The Base or Standard of the Hi-Low Table is of cast iron, weighing about 60 lbs.

It is of a pedestal type and the weight is so distributed as to give a solid foundation.

With a Standard of this design and weight we can accommodate Boards up to and including 31x42 inches, without screwing the Standard to the floor.

For Boards larger than 31x42 inches we use the same Standard, but attach it to a sub-base having a diameter of 30 inches. It is unnecessary to fasten the base down; this is a convenience for large boards, or when the floors are of cement.

All metal parts are beautifully enameled (baked on) and striped in gold. The Clamp Levers are nicked. With the exception of the Board and Foot Rest all parts of the Hi-Low are made of cast iron.

No. B-02265—HI-LOW ADJUSTABLE DRAWING TABLE  
(without Board) .....\$37.50

### EXTRAS

No. B-02265A—FOLDING ARM, with Shelf.....\$3.75  
No. B-02265B—FOLDING ARM, with Shelf, Drawer and Lock 6.75  
No. B-02265C—FOLDING ARM, with Shelf, 2 Drawers and  
Locks ..... 8.75  
No. B-02265D—CAST IRON SUB-BASE, 30-inch, Enameled, . 5.00

Subject to Discount.

For those desiring Boards we will supply them at prices given on page 163.



## Drawing Tables—Continued



No. B-02255A—DRAWING  
TABLE

With revolving, tilting and raising adjustment, the latter accomplished by means of rack and pinion. Entire base of iron.

Without attachments . . . \$12.50

No. B-02255A, with attachment No. B-02255D

No. B-02255B—DRAWING  
TABLE

Same as No. B-02255A, without rack and pinion device for raising.

Its price is the lowest consistent with good construction.

Without attachments . . \$9.00



No. B-02255B, with attachments Nos. B-02255C and D

### Attachments for Tables Nos. B-02255A, B-02255B

No. B-02255C—DRAWER,  $7\frac{1}{2} \times 13 \times 3\frac{1}{2}$  inches, with tray top and swinging arm. . . . . \$3.50

No. B-02255D—INSTRUMENT SHELF, automatically kept level at top of board. . . . . 2.00



# Drawing Tables



No. B-02257A

No. B-02257A—DRAWING TABLE; top, soft pine, 39x84x1 $\frac{3}{8}$  inches.

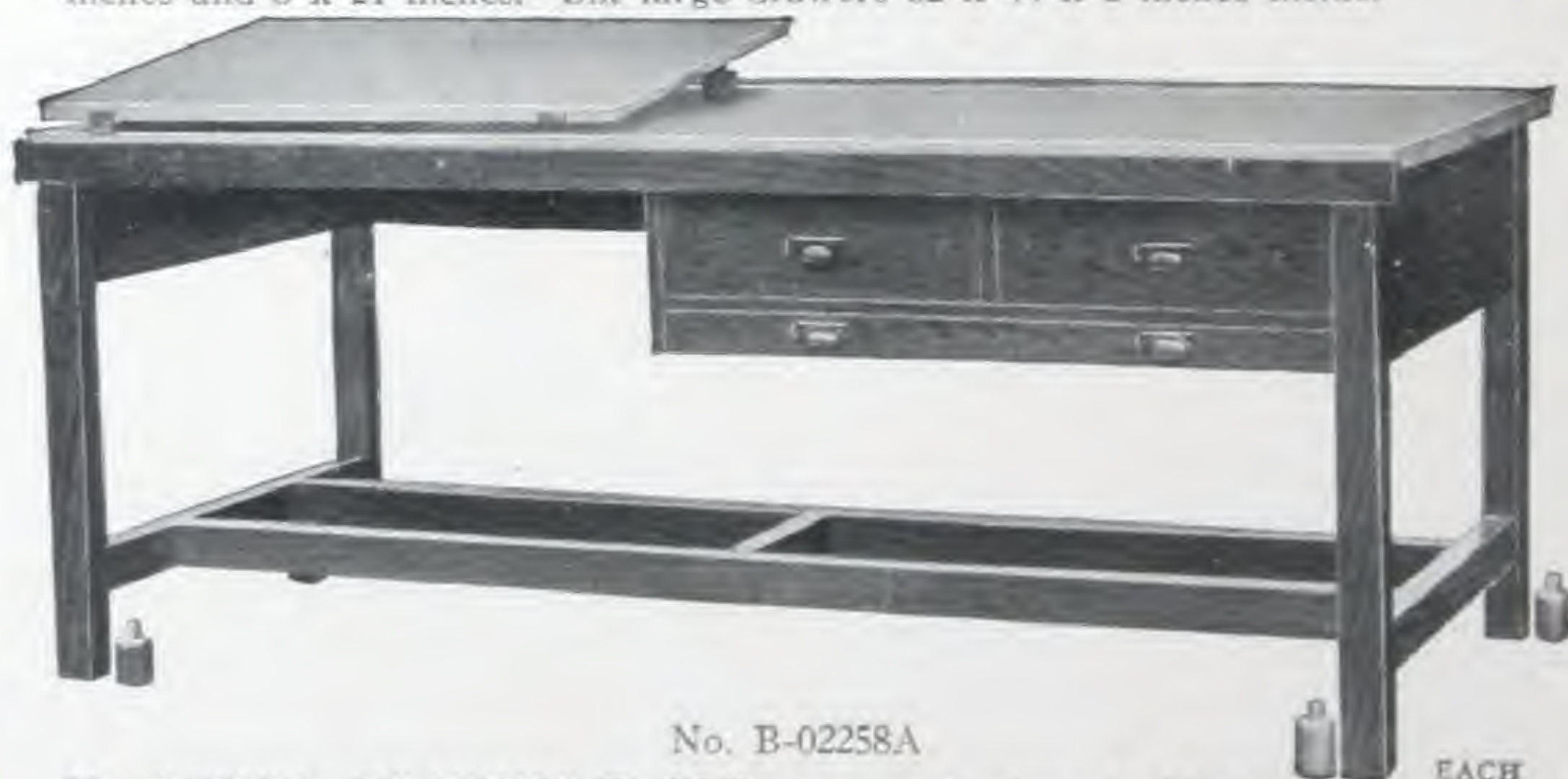
Table 34 inches high, without loose board.....\$57.00

Two small drawers, 18 x 24 x 4 inches inside, in two compartments, 18 x 18 inches and 6 x 18 inches. Six large drawers 26 x 38 x 2 inches inside.

No. B-02257B—DRAWING TABLE; top, soft pine, 39x84x1 $\frac{3}{8}$  inches.

Table 34 inches high, without loose board..... 60.00

Two small drawers, 21 x 24 x 4 inches inside, in two compartments, 18 x 21 inches and 6 x 21 inches. Six large drawers 32 x 44 x 2 inches inside.



No. B-02258A

No. B-02258A—DRAWING TABLE; top, soft pine, 34x72x1 $\frac{3}{8}$  inches.

Table 34 inches high, without loose board.....\$40.00

Two small drawers, 18 x 24 x 4 inches inside, in two compartments, 18 x 18 inches and 6 x 18 inches. One large drawer 26 x 38 x 2 inches inside.

No. B-02258B—DRAWING TABLE; top, soft pine, 39x84x1 $\frac{3}{8}$  inches.

Table 34 inches high, without loose board..... 42.00

Two small drawers, 18 x 24 x 4 inches inside, in two compartments, 18 x 18 inches and 6 x 18 inches. One large drawer 26 x 38 x 2 inches inside.



## Drawing Tables—Continued



No. B-02259

No. B-02259—DRAWING TABLE. Top, soft pine, 33x60x1 $\frac{1}{8}$  inches. Table 34 inches high. One small drawer, 13x26x4 inches inside, in two compartments, 13x18 and 13x7 $\frac{1}{2}$  inches. Four small drawers 13 $\frac{3}{4}$ x24 $\frac{1}{4}$ x3 $\frac{3}{4}$  inches inside. One large drawer 26x38x2 $\frac{1}{4}$  inches inside.

Price, without loose board.....\$38.00

Tables Nos. B-02257 to B-02259 are supplied with set of four raising blocks, 1, 2 or 3 inches high.

Material, oak, except top. Finish, three-coat, dull rubbed smooth. Golden finish unless specified.

### Extras for Tables Nos. B-02257 to B-02259

	EACH
No. B-02259C—Loose Inclined Board, 32x44 inches.....	\$4.75
No. B-02259D—Loose Inclined Board, 26x38 inches.....	3.75
No. B-02259E—Tool Tray and Frame fitted to Tool Drawer....	1.50
No. B-02259F—Lock, Ordinary—2 keys each.....	.70
No. B-02259G—Lock, Master Keyed—2 keys each.....	1.25
(1 master key furnished with 8 or more locks.)	
No. B-02259H—Holding-Down Wires, per pair.....	.20
No. B-02259J—Spring Cover fitted in drawer.....	.40



## Drawing Tables—Continued

### Adjustable Drawing Tables



No. B-02261

These tables are made of Oak, with White Pine tops, and are especially designed to be used with our Sectional Units Nos. B-02270 and B-02271, shown on pages 178 to 180, Sections C and K being particularly adapted to this purpose. They are shipped "knocked down," and when assembled are very rigid. They are adjustable to any height or slant.

	EACH
No. B-02261 —ADJUSTABLE DRAWING TABLE, with top only, 37x60.....	\$22.00
No. B-02261A—ADJUSTABLE DRAWING TABLE, with top only, 37x72.....	25.00
No. B-02261B—ADJUSTABLE DRAWING TABLE, with top only, 42x72.....	27.00
No. B-02261C—ADJUSTABLE DRAWING TABLE, with top only, 42x84.....	34.00

See page 180 for prices of Sectional Units for use in connection with these tables.



## Drawing Tables—Continued

### Adjustable Drawing Tables



No. B-02263B

No. B-02263A—ADJUSTABLE DRAWING TABLE, with	EACH
two shallow drawers.....	\$26.00

No. B-02263B—ADJUSTABLE DRAWING TABLE, with	
two shallow drawers and four drawer unit...	38.00

These tables are made of oak, with basswood top 34x60 inches, which can be adjusted to any desired height or slant. The table is 34 inches in height and is furnished with raising blocks.

Large shallow drawer is 23x37x2 inches inside, smaller drawer 10½x23x3¼ inches inside, and four drawer unit is 35½x10¼x23 inches inside.

These tables are shipped "knocked down" and when assembled are very rigid.

Above prices do not include parallel ruling attachment. For price see page 147.



## Steel Filing Cabinets

**STEEL PLAN DRAWER CABINETS** are made of No. 16 gauge cold rolled furniture steel, which has been re-annealed and pickled to remove all foreign matter and leveled to eliminate buckling. Welded corners eliminate joints.

**FIRE PROTECTION**—Built entirely of steel, they are a protection against destruction by fire. Double steel sides and heads with the dead air space for additional strength and protection.



Nos. B-02266 A-B-E-H; B-02267 A-B-E-H

**STABILITY**—Steel is practically indestructible. Changes of atmosphere do not swell or shrink the drawers or cause the joints to separate.

**EASE OF OPERATION**—The angle roller suspension insures ease of operation regardless of weight of contents or the changes of atmosphere.

**COLOR**—Olive green, which will blend with any surroundings.

**DRAWER PULLS AND LABEL HOLDERS**—Stamped brass, satin finish.

**FINISH**—The surface is as hard and smooth as glass, with a rich dull effect, produced after applying successive coats of baked enamel.

	Inside Length Inches	Width of Drawers Inches	Depth of Drawers Inches	Outside Length Inches	Width Over All Inches	Height Over All Inches	Each
No. B-02266-A Top.....				40 3/4	29 1/4	3/4	\$ 8.00
No. B-02266-B Six Drawer Section...	37	25	2 3/4	40 3/4	28 1/2	18	70.00
No. B-02266-C Five Drawer Section...	37	25	2	40 3/4	28 1/2	15 3/8	65.00
No. B-02266-D Three Drawer Section...	37	25	2	40 3/4	28 1/2	9 7/8	45.00
No. B-02266-E Three Drawer Section...	37	25	3 3/4	40 3/4	28 1/2	15 3/8	57.00
No. B-02266-F One Drawer Section...	37	25	7 1/2	40 3/4	28 1/2	9 7/8	35.00
No. B-02266-G Solid Base.....				40 3/4	28 1/2	4	6.50
No. B-02266-H Low Sanitary Base, 6 in.....				40 3/4	28 1/2	5 3/8	8.00
No. B-02266-J High Sanitary Base, 12 in.....				40 3/4	28 1/2	12	9.00
No. B-02266-K High Sanitary Base, 23 in.....				40 3/4	28 1/2	22 7/8	12.00
No. B-02267-A Top.....				46 3/4	36 1/4	3/4	9.00
No. B-02267-B Six Drawer Section...	43	32	2 3/4	46 3/4	35 1/2	18	75.00
No. B-02267-C Five Drawer Section...	43	32	2	46 3/4	35 1/2	15 3/8	70.00
No. B-02267-D Three Drawer Section...	43	32	2	46 3/4	35 1/2	9 7/8	50.00
No. B-02267-E Three Drawer Section...	43	32	3 3/4	46 3/4	35 1/2	15 3/8	62.00
No. B-02267-F One Drawer Section...	43	32	7 1/2	46 3/4	35 1/2	9 7/8	36.00
No. B-02267-G Solid Base.....				46 3/4	35 1/2	4	7.50
No. B-02267-H Low Sanitary Base, 6 in.....				46 3/4	35 1/2	5 1/2	9.00
No. B-02267-J High Sanitary Base, 12 in.....				46 3/4	35 1/2	12	10.00
No. B-02267-K High Sanitary Base, 23 in.....				46 3/4	35 1/2	22 1/4	15.00



Sectional Filing Case for Drawings, Tracings,  
Blue Prints, Specifications, Maps,  
Photographs, Etc.

**These Cabinets** are made on the same plan as the well-known sectional bookcases, all being uniform in size and finish so that any number of sections procured at different times will fit perfectly.

**Sizes.** Carried in stock in two sizes. The drawers measure  $32 \times 42\frac{1}{2}$  or  $25 \times 37\frac{1}{2}$  inside; outside dimensions of case,  $34\frac{1}{2} \times 45\frac{1}{2}$  or  $27\frac{1}{4} \times 40\frac{1}{2}$ . Special sizes made to order on short notice.



**Construction and Material.** Made of well seasoned and thoroughly kiln dried oak. The drawers are constructed with dovetailed joints, and slide in grooves, there being no rails between. The back of each drawer is covered for a space of six inches with a thin strip to prevent drawings from curling. Sections are held in place by means of a half-round projection on the back, which fits into the upper section, and the front rails are bolted together, preventing the rail from sagging and catching on the drawer. Top, bases and sections, excepting No. B-02270A and No. B-02271A, are same width over all, so that another stack can be built up without leaving an opening. All joints are well glued, and glue blocks are used at frequent intervals to make the case firm and durable.

**Finish and Trimmings.** Carried in stock in Golden Oak finish. Any finish to order. Three coats of varnish rubbed and finished in a uniform color. Oxidized drawer pulls and label holders.



Sectional Filing Cases—Continued



Nos. B-02270A—B-02271A



Nos. B-02270B—B-02271B



Nos. B-02270C—B-02271C



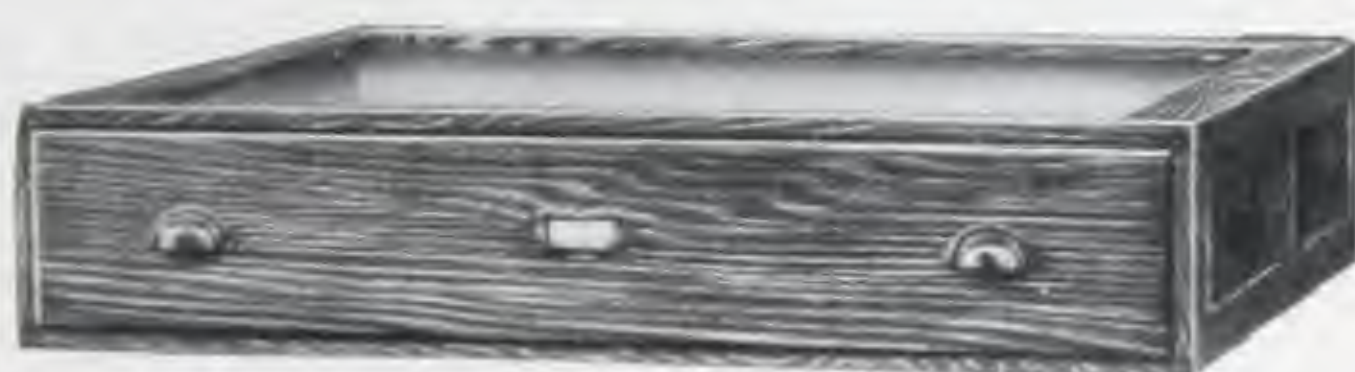
Nos. B-02270D—B-02271D

For price list see page 180.





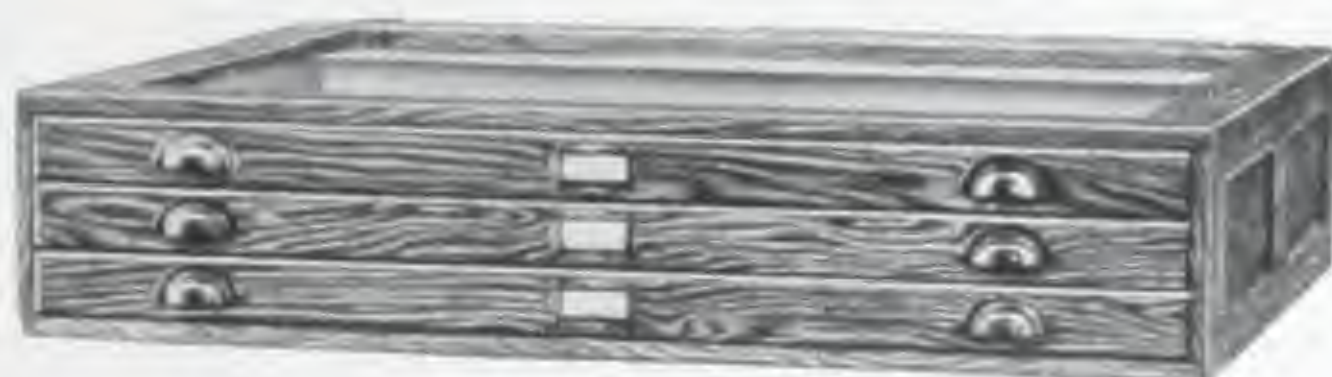
## Sectional Filing Cases—Continued



Nos. B-02270E—B-02271E



Nos. B-02270K—B-02271K



Nos. B-02270L—B-02271L



Nos. B-02270M—B-02271M



Nos. B-02270F—B-02271F

For price list see page 180.



# Sectional Filing Cases—Continued



Nos. B-02270G—B-02271G



Nos. B-02270H—B-02271H



Nos. B-02270J—B-02271J

		Inside Length Inches	Width of Drawers Inches	Depth of Drawers Inches	Outside Length Inches	Width Over All Inches	Height Over All Inches	Shipping Weight Pounds	Each
No. B-02270-A	Five Drawer Section with oak top attached.	42 3/4	32	2	47	35	15 3/8	160	\$26.50
No. B-02270-B	Oak Cap				45 1/2	35 1/4	3	75	7.50
No. B-02270-C	Five Drawer Section	42 3/4	32	2	45 3/4	34 1/4	14 1/2	150	22.50
No. B-02270-D	Three Drawer Section	42 3/4	32	3 3/4	45 3/4	34 1/4	14 1/2	145	21.50
No. B-02270-E	One Drawer Section	42 3/4	32	6	45 3/4	34 1/4	8	90	11.50
No. B-02270-F	Base with Drawer	42 3/4	32	6 1/4	45 3/4	34 1/4	9 1/2	95	11.00
No. B-02270-G	Plain Base				45 3/4	34 1/4	4	35	5.00
No. B-02270-H	Low Sanitary Base				45 3/4	34 1/4	5 3/4	30	5.00
No. B-02270-J	High Sanitary Base				45 3/4	34 1/4	22 3/4	70	9.75
No. B-02270-K	Two Drawers 20x32x 3 3/4 and One Drawer 32x42 1/2x2				45 3/4	34 1/4	9 3/4	100	18.00
No. B-02270-L	Three Drawers	42 3/4	32	2	45 3/4	34 1/4	9 3/4	100	17.00
No. B-02270-M	Two Drawers 20x32x 3 3/4 and Three Drawers 32x42 1/2x2				45 3/4	34 1/4	14 1/2	155	23.50
No. B-02271-A	Five Drawer Section with oak top attached	37 3/4	25	2	42	27 3/4	15 3/8	135	24.00
No. B-02271-B	Oak Cap				40 3/4	28	3	65	6.75
No. B-02271-C	Five Drawer Section	37 3/4	25	2	40 3/4	27 3/4	14 1/2	125	20.25
No. B-02271-D	Three Drawer Section	37 3/4	25	3 3/4	40 3/4	27 3/4	14 1/2	115	19.25
No. B-02271-E	One Drawer Section	37 3/4	25	6	40 3/4	27 3/4	8	85	10.25
No. B-02271-F	Base with Drawer	37 3/4	25	6 1/4	40 3/4	27 3/4	9 1/2	85	9.75
No. B-02271-G	Plain Base				40 3/4	27 3/4	4	25	4.75
No. B-02271-H	Low Sanitary Base				40 3/4	27 3/4	5 3/4	25	4.75
No. B-02271-J	High Sanitary Base				40 3/4	27 3/4	22 3/4	60	9.00
No. B-02271-K	Two Drawers 17 1/2x 25x3 3/4 and One Draw- er 37 1/2x25x2				40 3/4	27 3/4	9 3/4	90	16.50
No. B-02271-L	Three Drawers	37 3/4	25	2	40 3/4	27 3/4	9 3/4	90	15.75
No. B-02271-M	Two Drawers 17 1/2x25 x3 3/4 and Three Draw- ers 37 1/2x25x2				40 3/4	27 3/4	14 1/2	130	18.75

Tool tray for Sections K and M each \$1.00.





## Vertical Filing Cabinets



No. B-02278

## No. B-02278—VERTICAL FILING CABINET.

A well made, dust proof cabinet for filing blue prints, drawings, maps, plats, etc.

Each cabinet has twenty pockets, as illustrated, closed on the sides half way up; there is no danger of any prints being lost, and the largest and smallest prints may be filed together. The pockets are made of extremely tough and heavy manila paper, and are re-enforced with linen. The wooden rods hold the pockets suspended in the cabinet, and, being beveled, the index number is always in sight. The contents are as easily located as the letters in your vertical files, by means of a card index attached to the under side of the cover. The front of the cabinet, when raised, forms a handy reference table.

After raising the lid, the front swings out about six inches, giving ample room to separate the pockets, in order to file or find any print without removing the pockets.

Size A—For drawings 40x36 inches or smaller.

EACH

Plain Oak .....\$73.75

Quartered Oak ..... 77.50

Mahogany ..... 102.50

Size B—For drawings 44x30 inches or smaller.

Plain Oak ..... 68.75

Quartered Oak ..... 73.75

Mahogany ..... 91.50

Size C—For drawings 48x36 inches or smaller.

Quartered Oak only ..... 78.75



## Steel Vertical File



No. B-02279

### No. B-02279—STEEL VERTICAL FILE.

This section will file papers 44x30 inches, and is equipped with strong file pockets supported on reinforced steel strips. The outside measurements of this section are 48 $\frac{5}{8}$ x41x14 $\frac{1}{2}$  inches. It operates in the same manner as the wood sections shown on preceding page.

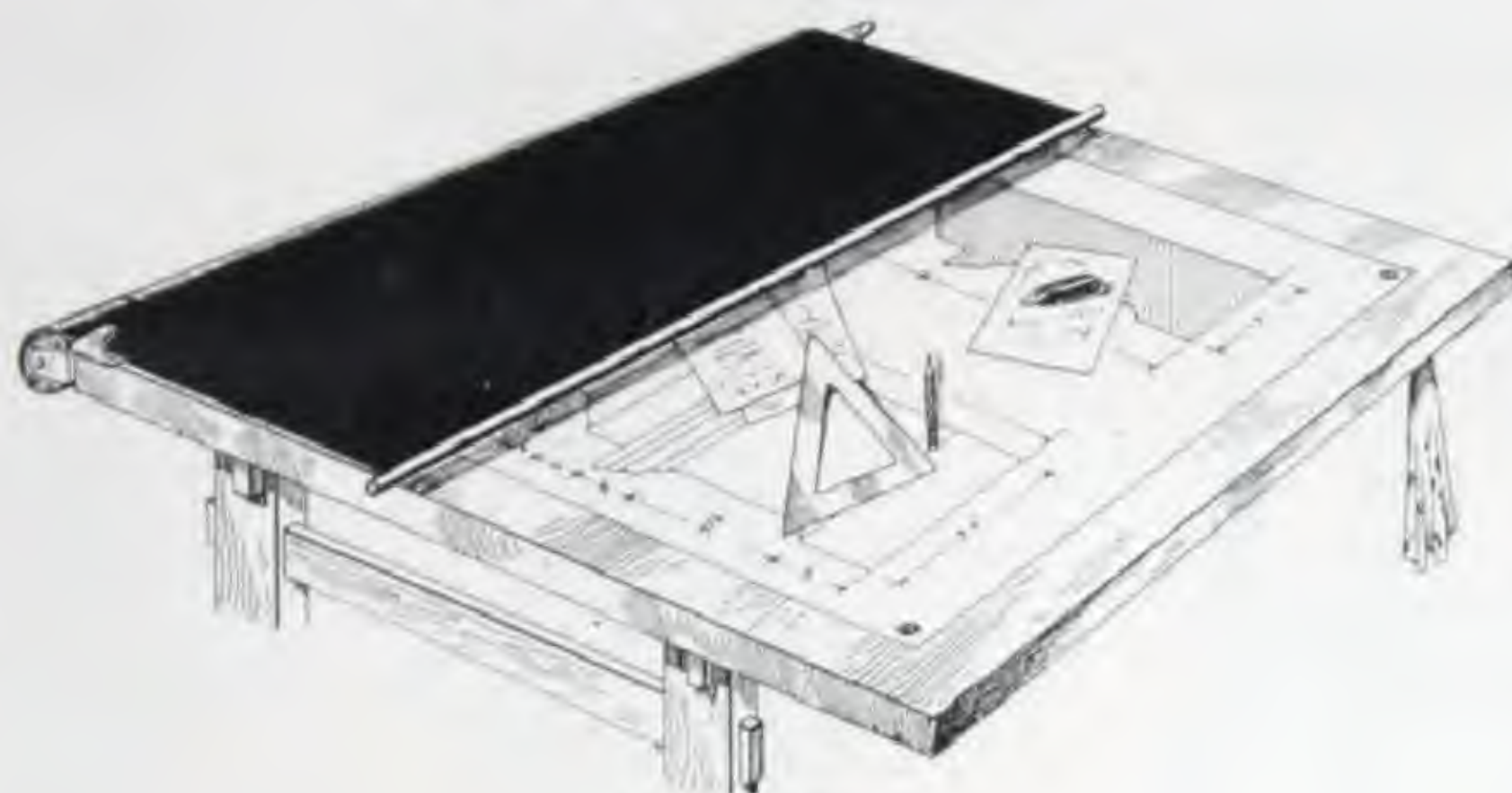
The sides, ends, top and bottom consist of two steel walls, dead air space and asbestos. Top is provided with a handle and spring latch-lock. The design is plain and strong and built to give service and the maximum protection against fire and extreme heat. Card frames and index cards are mounted inside the cover for indexing the records filed vertically in the file pockets furnished with this Vertical File for blue prints, tracings, maps, etc.

When opened the front acts as a reference table. Highly finished in olive green.

Each .....\$178.75



## Drawing Protectors



No. B-02280

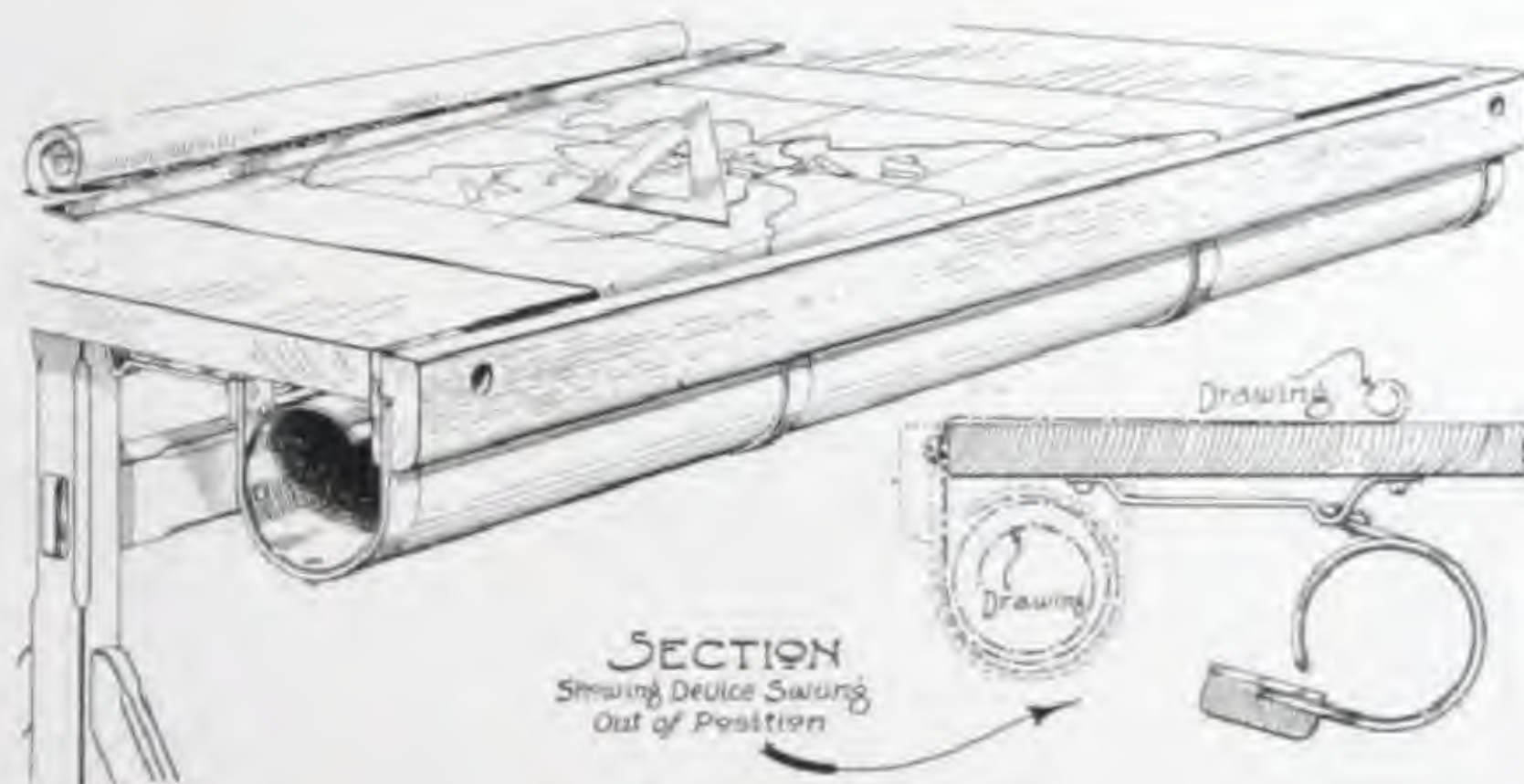
### No. B-02280—PROTECTING COVER.

Curtain of heavy black waterproof material, mounted on best spring rollers. Fully protects board and drawings from dust and moisture.

Valuable tracings can be left on the board without fear of injury from dust, open windows or leaky pipes.

Made in standard lengths.

Width, inches .....	42	48	54	60	72
Each .....	\$6.00	\$6.75	\$7.50	\$8.25	\$8.75



No. B-02285

### No. B-02285—DRAWING PROTECTOR.

A device to protect from injury long tracings which must be projected over the front edge of the board. A strip of hardwood extends the entire length of the board, protecting the drawing from contact with the clothes. Made of steel and so arranged on board that it can be readily thrown out of position when not needed.

Made to fit standard boards, as follows:

Width, inches .....	48	54	60	72
Each .....	\$8.00	\$9.00	\$10.50	\$11.50



Draftsmen's Stools, Wood



No. B-02290



No. B-02294



No. B-02292



No. B-02296



No. B-02296A



No. B-02296B



## Draftsmen's Stools, Steel



No. B-02297B



No. B-02297



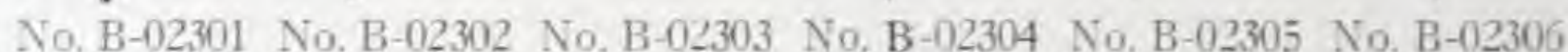
No. B-02297A

### Price List

	EACH
No. B-02290—ELM STOOL, wood seat, 34 in. high.....	\$2.50
No. B-02291—ELM STOOL, same as No. B-02290, but with cane seat...	3.00
No. B-02292—OAK STOOL, wood seat, adjustable from 31 to 35 in.....	6.50
No. B-02293—OAK STOOL, same as No. B-02292, but with cane seat...	7.00
No. B-02294—OAK STOOL, wood seat, adjustable from 31 to 35 in.....	8.00
No. B-02295—OAK STOOL, same as No. B-02294, but with cane seat...	8.56
No. B-02296 —OAK STOOL, with back, adjustable from 31 to 35 in.....	7.50
No. B-02296A—OAK STOOL, with back, adjustable from 31 to 35 in.....	10.50
No. B-02296B—OAK STOOL, with back, adjustable from 31 to 35 in.....	12.00
No. B-02297 —STEEL STOOL, wood seat, 30 in. high.....	2.75
No. B-02297A—STEEL STOOL, wood seat, adjustable back, 30 in. high	3.50
No. B-02297B—STEEL STOOL, wood seat, with adjustable back, seat also adjustable from 28 to 32 in.....	9.00



Best Quality—One Dozen on a Card



	DOZ.	GRO.
No. B-02301—GERMAN SILVER, FLAT HEADS, $\frac{3}{8}$ -in. diam. . . .	\$0.50	\$5.00
No. B-02302—GERMAN SILVER, FLAT HEADS, $\frac{1}{2}$ -in. diam. . . .	.65	6.50
No. B-02303—GERMAN SILVER, FLAT HEADS, $\frac{5}{8}$ -in. diam. . . .	.80	8.00
No. B-02304—GERMAN SILVER, BEVELED HEADS, $\frac{3}{8}$ -in. diam. . .	.50	5.00
No. B-02305—GERMAN SILVER, BEVELED HEADS, $\frac{1}{2}$ -in. diam. . .	.65	6.50
No. B-02306—GERMAN SILVER, BEVELED HEADS, $\frac{5}{8}$ -in. diam. . .	.80	8.00

### Ordinary Quality—One Dozen on a Card

	DOZ.	GRO.
No. B-02311—GERMAN SILVER, FLAT HEADS, $\frac{3}{8}$ -in. diam.	\$0.25	\$2.50
No. B-02312—GERMAN SILVER, FLAT HEADS, $\frac{1}{2}$ -in. diam.	.30	3.00
No. B-02313—GERMAN SILVER, FLAT HEADS, $\frac{5}{8}$ -in. diam.	.40	4.00
No. B-02314—BRASS, FLAT HEADS, $\frac{3}{8}$ -in. diam.	.12	1.20
No. B-02315—BRASS, FLAT HEADS, $\frac{1}{2}$ -in. diam.	.15	1.50
No. B-02316—BRASS, FLAT HEADS, $\frac{5}{8}$ -in. diam.	.20	2.00

No. B-02321—STAMPED STEEL, $\frac{5}{8}$ -in. diam.	Box of 100	EACH \$0.35
No. B-02323—STAMPED STEEL, $\frac{3}{4}$ -in. diam.	Box of 100	.45
No. B-02325—STAMPED STEEL, $\frac{1}{2}$ -in. diam.	Box of 100	.60



### Horn Centers



No. B-02331

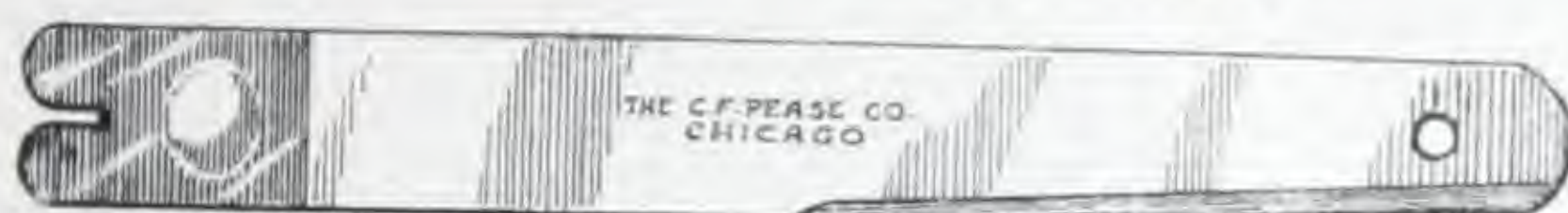


No. B-02333



- |   |      |        |
|---|------|--------|
| No. B-02331—HORN CENTERS, plain, $\frac{1}{2}$ -in. ....              | EACH | \$0.10 |
| No. B-02333—HORN CENTERS, German silver edge, $\frac{3}{4}$ -in. .... |      | .50    |

### Tack Lifter and Paper Knife



No. B-02335

- |  |      |        |
|--|------|--------|
| No. B-02335—TACK LIFTER AND PAPER KNIFE, nickel plated ..... | EACH | \$0.25 |
|--|------|--------|

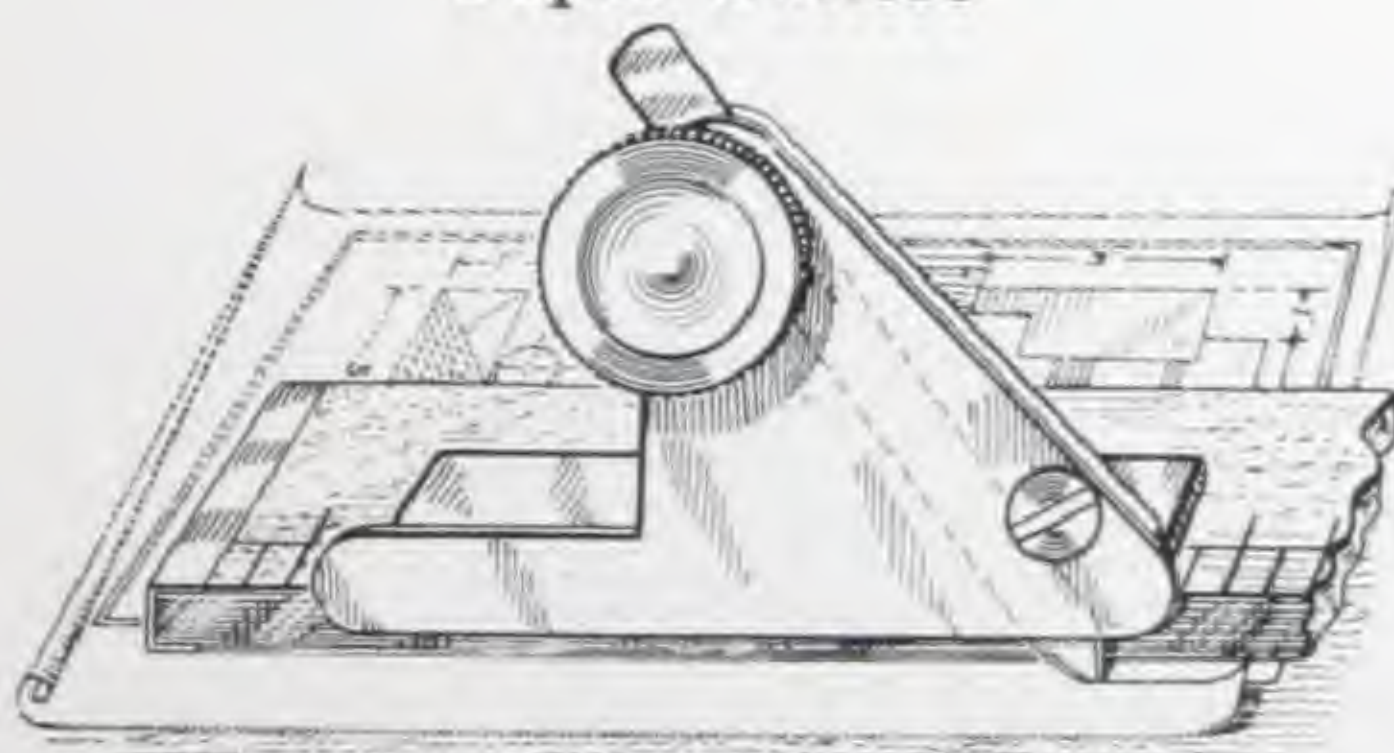
### Pencil File and Tack Lifter



No. B-02337

- |   |      |        |
|---|------|--------|
| No. B-02337—STEEL PENCIL FILE AND TACK LIFTER, $7\frac{3}{4}$ -in. .... | EACH | \$0.30 |
|---|------|--------|

### Paper Cutters



No. B-02338

- |   |      |        |
|---|------|--------|
| No. B-02338—PAPER CUTTER, brass .....         | EACH | \$0.35 |
| No. B-02339—PAPER CUTTER, nickel plated ..... |      | .45    |



## Higgins' Drawing Inks



No. B-02361

	3/4 oz.	8 oz.	16 oz.	32 oz.
	EACH	EACH	EACH	EACH
No. B-02360—HIGGINS' GENERAL BLACK INK.....	\$0.25	\$2.00	\$3.75	\$7.00
No. B-02361—HIGGINS' WATERPROOF BLACK INK .....	.25	2.00	3.75	7.00
No. B-02362—HIGGINS' WATERPROOF COLORED INKS .....	.25	2.00	3.75	7.00

Blue,  
Brick Red,  
Brown,  
Violet,

Carmine,  
Green,  
Indigo,  
Yellow.

Orange,  
Scarlet,  
Vermilion.

	3/4 oz.	2 oz.	8 oz.	16 oz.	32 oz.
	EACH	EACH	EACH	EACH	EACH
No. B-02363—HIGGINS' WATERPROOF WHITE INK.....	\$0.25				
No. B-02365—HIGGINS' ETERNAL INK.....	\$0.10	\$0.35	\$0.60	\$1.00	
No. B-02366—HIGGINS' ENGROSSING INK.....	.20	.60	1.00	1.75	

## Inkwash

### For Removing Black Drawing Ink from Tracing Cloth

This wash does not injure the cloth and gives good results where the surface of the cloth has not been injured.

	1 oz.	4 oz.
	EACH	EACH
No. B-02369—INKWASH .....	\$0.45	\$1.25



## Higgins' Pastes



No. B-02371



No. B-02374

	EACH
No. B-02370—DRAWING BOARD MUCILAGE, 3-oz. jar. . . . .	\$0.15
No. B-02371—DRAWING BOARD MUCILAGE, 6-oz. jar. . . . .	.25
No. B-02372—DRAWING BOARD MUCILAGE, 14 oz. jar. . . . .	.50
No. B-02373—PHOTO MOUNTER, 3-oz. jar. . . . .	.15
No. B-02374—PHOTO MOUNTER, 6-oz. jar. . . . .	.25
No. B-02375—PHOTO MOUNTER, 14-oz. jar. . . . .	.50
No. B-02376—VEGETABLE GLUE, 8-oz. cans. . . . .	.15
No. B-02377—VEGETABLE GLUE, 16-oz. cans. . . . .	.25

## Paste and Glue in Tubes

	EACH
No. C-02378—DENNISON'S PASTE, in tubes. . . . .	\$0.12
No. B-02378A—DENNISON'S GLUE, in tubes. . . . .	.12

## Le Page's Glue



No. B-02379

	EACH
No. B-02379—LE PAGE'S GLUE, 1 oz. bottles. . . . .	\$0.10
No. B-02379A—LE PAGE'S GLUE, ½ gill cans. . . . .	.15
No. B-02379B—LE PAGE'S GLUE, 1 gill cans. . . . .	.25



## Water Color Liquids



No. B-02380



No. B-02382

	EACH
No. B-02380—WINSOR & NEWTON'S CHINESE WHITE, large size.	\$0.35
No. B-02382—BOURGEOIS' INDIAN INK, medium size.	.25
No. B-02384—WINSOR & NEWTON'S ALBANINE, large size.	.35
No. B-02386—WINSOR & NEWTON'S PROCESS BLACK, large size.	.35
No. B-02390—SEMPLE'S WHITE, small jars.	.25
No. B-02392—SEMPLE'S WHITE, ½-lb. jars.	1.50
No. B-02393—BOURGEOIS' BLANC D'ARGENT, glass jars.	.35

## Japanned Tin Water Color Boxes

For Whole or Half Pans



No. B-02399

	EACH
No. B-02394—JAPANNED TIN BOX, for 6 whole pans.	\$0.90
No. B-02395—JAPANNED TIN BOX, for 8 whole pans.	1.00
No. B-02396—JAPANNED TIN BOX, for 10 whole pans.	1.25
No. B-02397—JAPANNED TIN BOX, for 12 whole pans.	1.50
No. B-02398—JAPANNED TIN BOX, for 10 half pans.	.90
No. B-02399—JAPANNED TIN BOX, for 12 half pans.	1.00
No. B-02399A—JAPANNED TIN BOX, for 16 half pans.	1.25
No. B-02399B—JAPANNED TIN BOX, for 20 half pans.	1.50



## Ink Bottle Holders



No. B-02400



No. B-02402

- No. B-02400—INK BOTTLE HOLDER AND PAPER  
WEIGHT, each .....\$0.35  
2 $\frac{7}{8}$  inches diameter. Weight 7 ozs.
- No. B-02402—INK BOTTLE HOLDER AND PAPER  
WEIGHT, each .....\$0.40  
3 $\frac{7}{8}$  inches diameter. Weight 12 ozs.

## The Pease-Well and Pen Filler



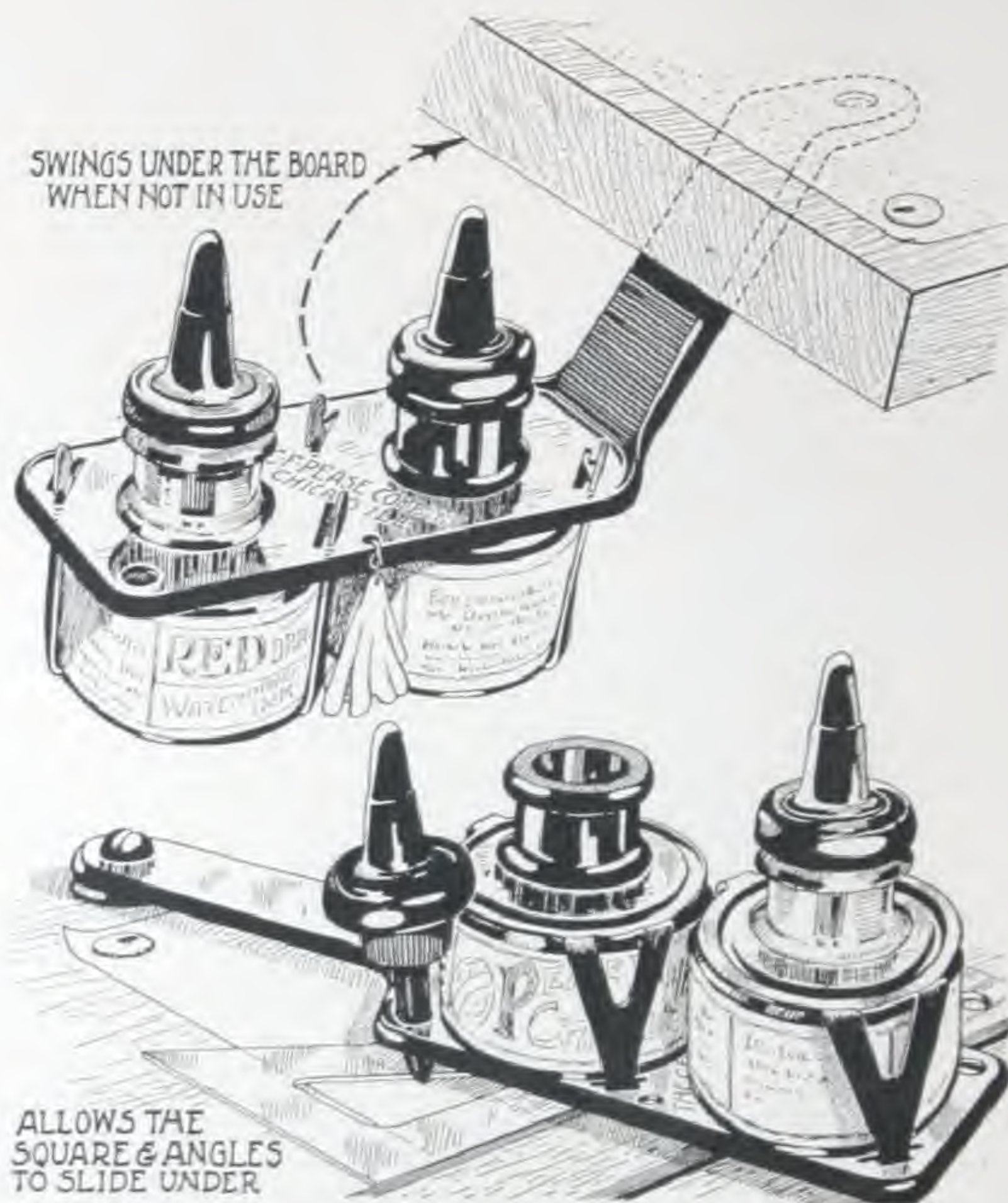
No. 2410—PEASE-WELL AND PEN FILLER. Each.....\$1.50

This device is made to hold a small bottle of Drawing Ink, and has a lever arm which can be operated from any angle by a slight pressure of the little finger on the ring. This raises the filler from the bottle; the pen is thus readily filled from the metal dipper, the whole operation being easily performed with one hand. The rubber disc in the cover fits closely over the mouth of the bottle to prevent evaporation.

Handsomely enameled and strongly constructed. Try one. Weight when packed for parcel post delivery, 3 pounds.



# Pease "Kant-Tip" Bottle Holder



Made in two styles, for use on top of board and to swing under board.

Holds two bottles of Higgins Ink, which can readily be placed securely in the holder.

Made of pressed steel, nicely japanned.

	EACH
No. B-02415—"KANT-TIP" BOTTLE HOLDER. To swing under board .....	\$0.35
No. B-02416—"KANT-TIP" BOTTLE HOLDER. For top of board .....	.35



## Peerless Bottle Holder



No. B-02420

No. B-02420—PEERLESS BOTTLE HOLDER.

Made to hold one to three bottles of drawing ink. The bottles are readily inserted in the base, in which they are held by spring collars, felt washers being supplied to fit over neck of bottle to absorb any shocks.

The bases and collars are stamped out of sheet steel, and are indestructible.

Practical and ornamental. Nicely jappanned. All bases supplied with three collars.

Each ..... \$0.50

## Dusting Brushes

For Removing Crumbs of Rubber, Etc., from Drawings



No. B-02298

No. B-02298—DUSTING BRUSH, soft bristle, 8-in. brush with 5-in. handle.	EACH \$0.75
No. B-02299—DUSTING BRUSH, best grade China bristle, firmly set, 8-in. brush with 6-in. handle.	90



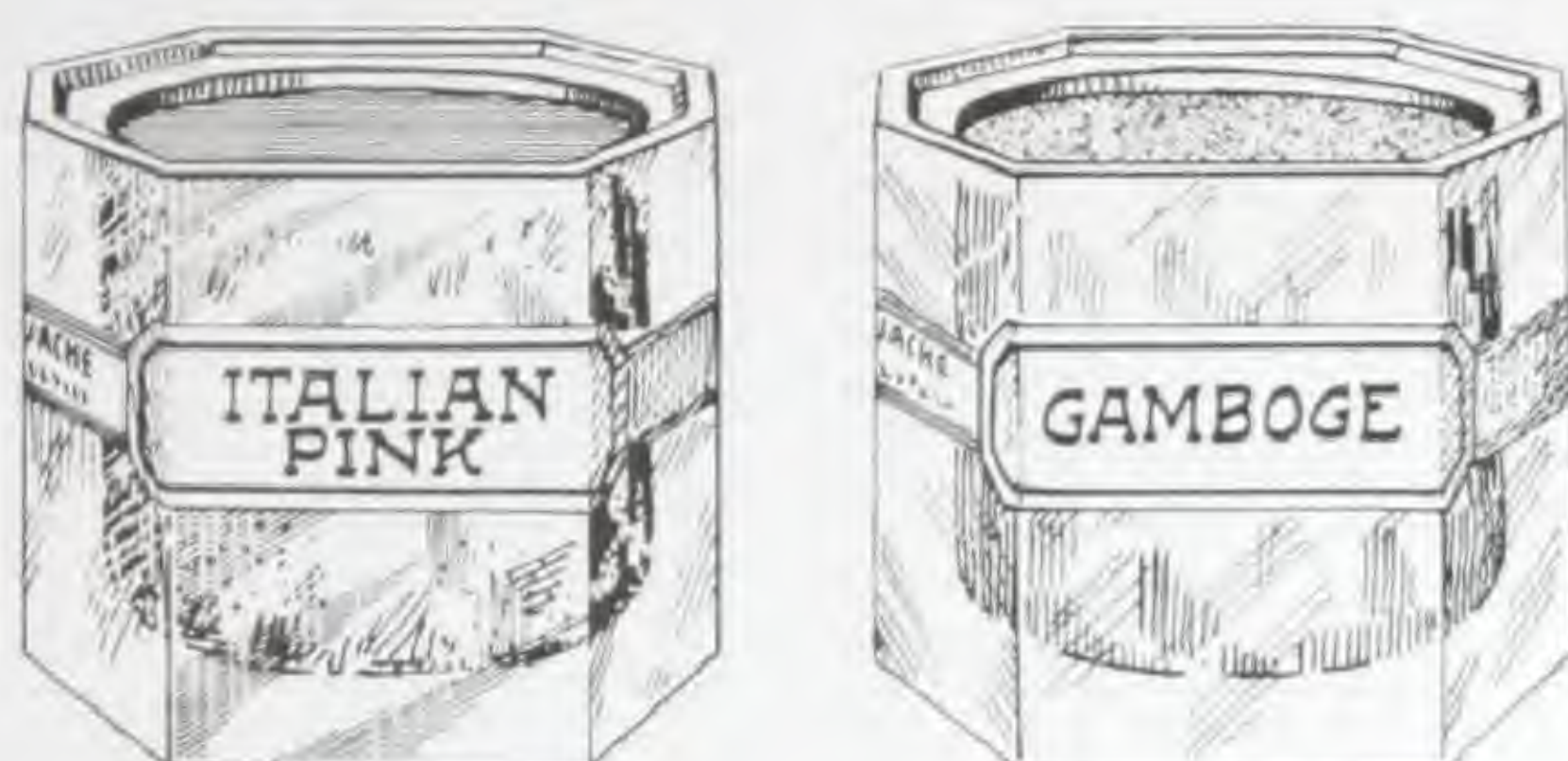


Half Pan

194



## Bourgeois' French Water Colors In Octagon Glass Jars



These jars contain more than double the quantity of whole pans of other manufacturers at nearly the same price. Made in moist state.

No. B-02461—		
Antwerp Blue	Emerald Green	Neutral Tint
Brown Ochre	Gamboge	Olive Green
Brown Pink	Green Lake	Payne's Grey
Burnt Sienna	Hooker's Green	Prussian Blue
Burnt Umber	Indian Red	Prussian Green
Chinese White	Indigo	Raw Sienna
Chrome Green, Light	Italian Pink	Raw Umber
Chrome Green, Med.	Ivory Black	Sap Green
Chrome Green, Dark	Lamp Black	Terre Verte
Chrome Yellow, Light	Lemon Yellow	Vandyke Brown
Chrome Yellow, Dark	Light Red	Venetian Red
Dragon's Blood	Naples Yellow	Yellow Ochre
Each		\$0.35
No. B-02462—		
Brilliant Yellow	Sepia	Vermilion, Dark
Celestial Blue	Ultramarine Blue, Light	Violet, Light, Extra
Crimson Lake	Ultramarine Blue, Dark	Violet, Dark, Extra
Dark Purple	Vermilion, Light	Warm Sepia
Scarlet Vermilion		
Each		\$0.50
No. B-02463—		
Brown Madder	Cypress Green, Dark	Rose Carthame, Light
Carmine	Geranium Rose	Rose Carthame, Dark
Cerulean Blue	Madder Lake, Light	Scarlet Lake
Cypress Green, Light	Madder Lake, Dark	
Each		\$0.75
No. B-02464—		
Cadmium Citron	Cadmium Yellow	Indian Yellow
Cadmium Deep	Cobalt Blue	
Each		\$1.00



# Camel Hair Water Color Brushes



No. B-02470—SUPER CAMEL HAIR WATER COLOR BRUSHES, nickel plated ferrules.

Nos.	1	2	3	4	5	6
Each	\$0.07	\$0.08	\$0.09	\$0.10	\$0.12	\$0.15
Dozen	.70	.80	.90	1.00	1.20	1.50

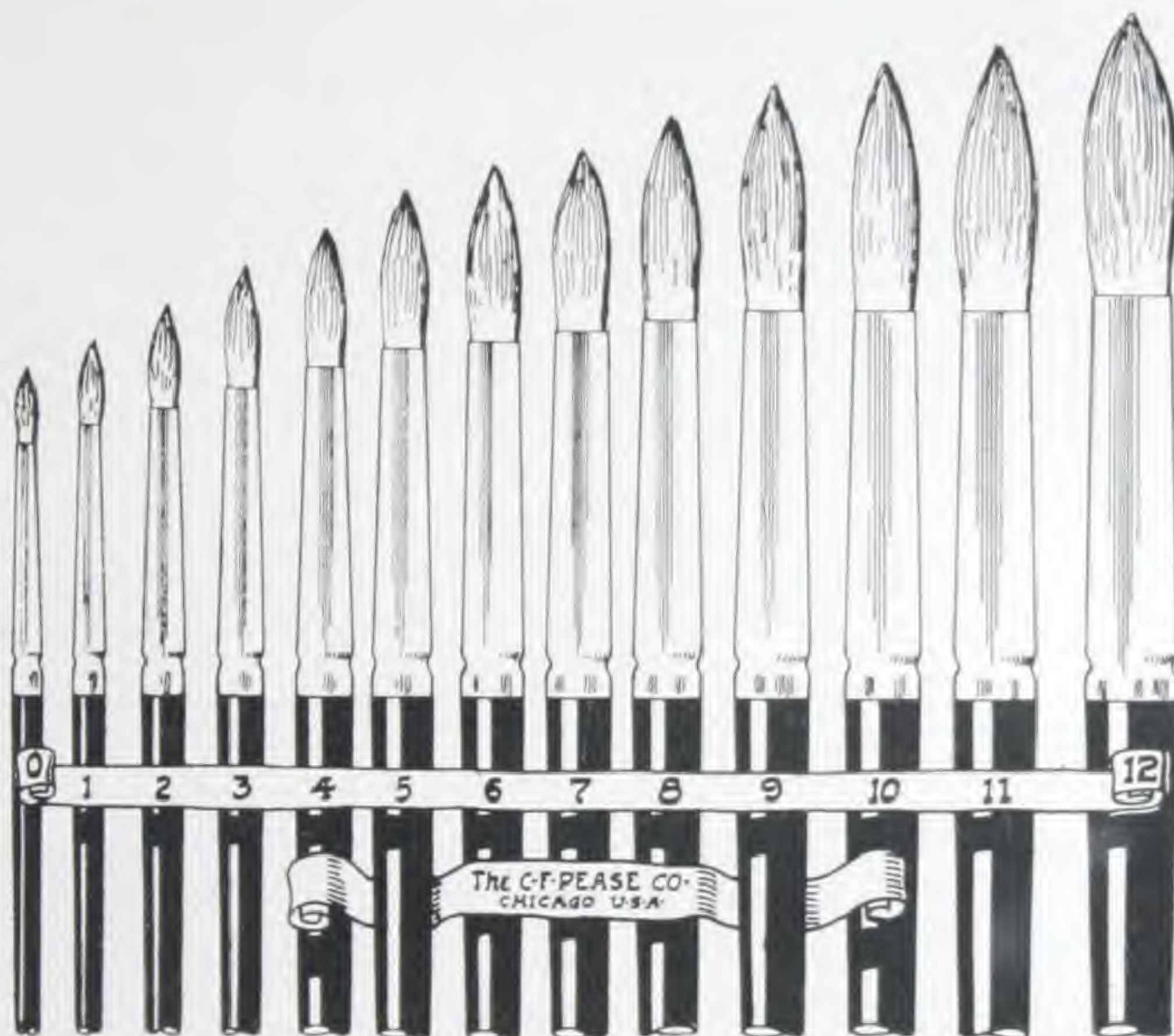


No. B-02475—CAMEL HAIR WATER COLOR WASH BRUSHES, double end, round or flat.

Nos.	0	1	2	3
Each	\$0.30	\$0.35	\$0.40	\$0.50
Dozen	3.00	3.50	4.00	5.00



Red Sable Water Color Brushes  
 Superfine Quality, Round, in Albata Ferrules  
 Illustrations full size



No. B-02480

No. B-02480—RED SABLE WATER COLOR BRUSHES, in Albata, black polished handles.

Nos.	0	1	2	3	4	5	6	7	8	9	10	11	12
Each—	\$0.10	.12	.15	.20	.25	.30	.35	.50	.70	.90	1.35	1.70	2.00
Dozen—	\$1.00	1.20	1.50	2.00	2.50	3.00	3.50	5.00	7.00	9.00	13.50	17.00	20.00



## Arkansas Oil Stones



No. B-02568

No. B-02560—ARKANSAS OIL STONE, wedge shape slip.....	EACH \$0.35
No. B-02562—ARKANSAS OIL STONE, wedge about 1 1/4 x 3 inches.....	.50
No. B-02564—ARKANSAS OIL STONE, wedge about 1 1/4 x 4 3/4 inches.....	1.00
No. B-02566—ARKANSAS OIL STONE, in case, with cover, 3 inches.....	.85
No. B-02568—ARKANSAS OIL STONE, in case, with cover, 5 inches.....	2.25

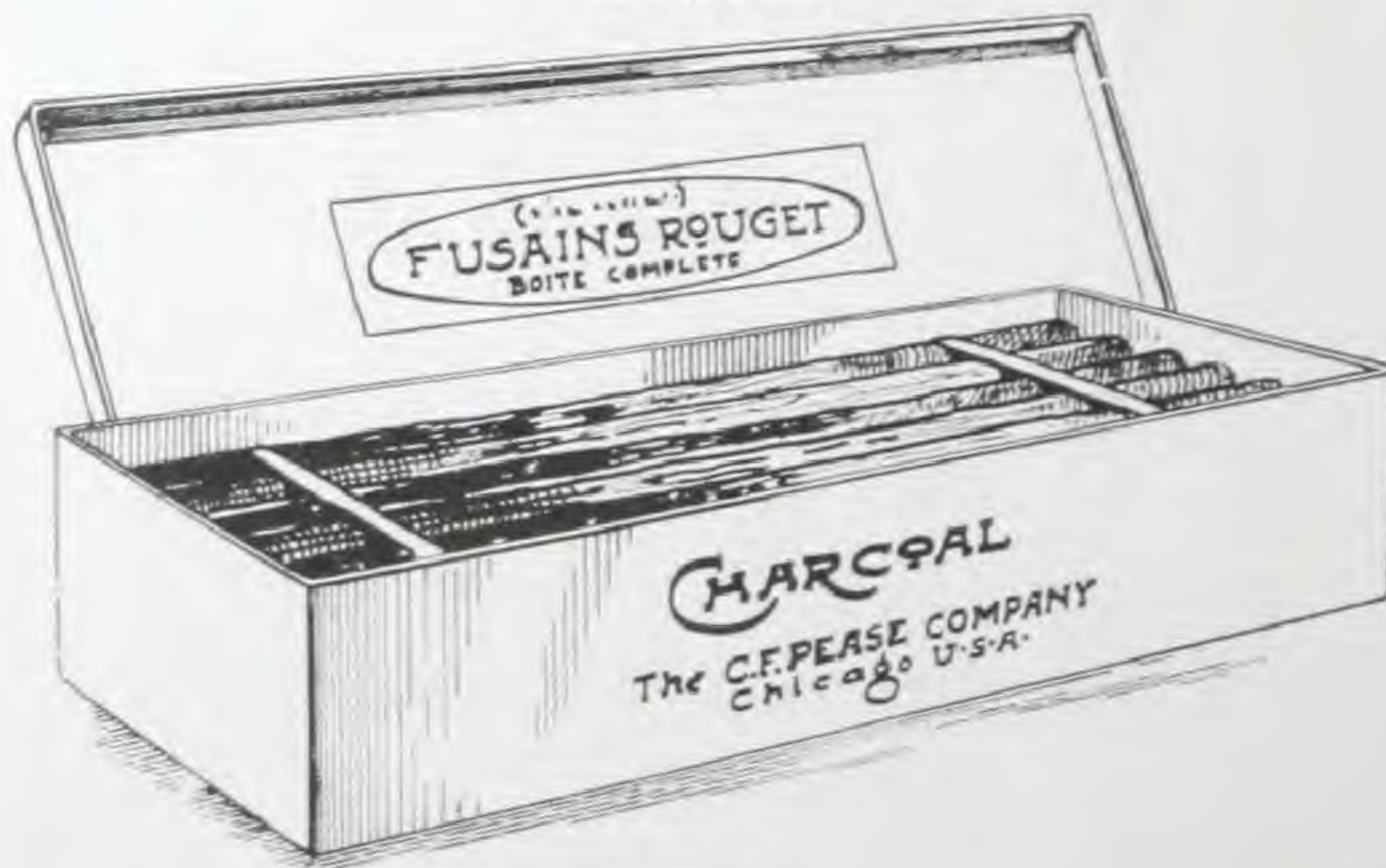
## Atomizers

No. B-02570—ATOMIZER, japanned tin, folding, each.....	\$0.15
--	--------

## Fixatif

No. B-02572—FIXATIF, for charcoal drawings, 2-oz. bottle.....	EACH \$0.20
No. B-02574—FIXATIF, for charcoal drawings, 8-oz. bottle.....	.50
No. B-02576—FIXATIF, for charcoal drawings, 16-oz. bottle.....	1.00

## Charcoal



No. B-02582

No. B-02580—CONTÉ ORDINARY, 50 sticks in box, 6 in. long.....	EACH \$0.20
No. B-02582—CONTÉ VENETIAN, box of 50 sticks.....	.60



## Drawing Pencils

On account of the European situation it is now impossible to furnish the high grade pencils formerly made in Austria and Germany.

We carry a full line of the highest grade pencils made in America, which we can confidently offer to a discriminating trade.



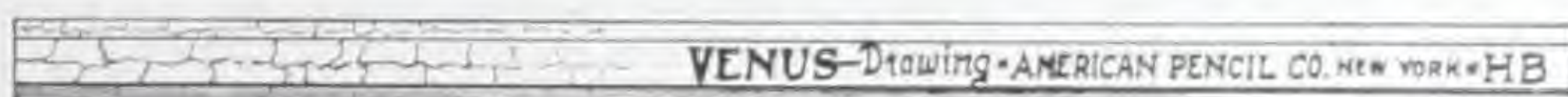
No. B-02680

	EACH	DOZ.	GROSS
No. B-02680—DIXON'S ELDORADO DRAWING PENCIL, hexagon, 6B to 7H.....	\$0.10	\$1.20	\$12.00



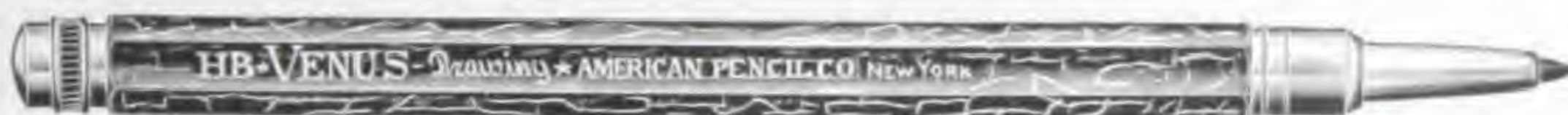
No. B-02685

	EACH	DOZ.	GROSS
No. B-02685—E. FABER'S VANDYKE DRAWING PENCIL, hexagon, 6B to 7H.....	\$0.10	\$1.20	\$12.00



No. B-02690

	EACH	DOZ.	GROSS
No. B-02690—AMERICAN PENCIL CO.'S VENUS DRAWING PENCIL, hexagon, 6B to 7H....	\$0.10	\$1.20	\$12.00



No. B-02692

	EACH	DOZ.
No. B-02692—AMERICAN PENCIL CO.'S VENUS ARTIST PENCIL, hexagon, containing one lead, 6B to 7H, ...	\$0.25	\$2.50



No. B-02694

	EACH	DOZ.	BOXES
No. B-02694—AMERICAN PENCIL CO.'S VENUS ARTIST LEADS, six in box, 6B to 7H.....	\$0.60	\$6.00	



## Eberhard Faber's Pencils



		EACH	DOZ.	GROSS
No. B-02703—E. FABER'S MONGOL PENCIL, hexagon, 6B-3B-2B-B-F-H-2H-3H-4H-5H-6H .....		\$0.05	\$0.60	\$6.00



		EACH	DOZ.	GROSS
No. B-02704—E. FABER'S MONGOL PENCIL, with rubber tip. Nos. 1, 2 and 3.....		\$0.05	\$0.60	\$6.00



		EACH	DOZ.	GROSS
No. B-02705—E. FABER'S STAR PENCIL, hexagon, Nos. 1, 2 and 3.....		\$0.03	\$0.35	\$3.50

## Blaisdell's Paper Pencils



		EACH	DOZ.	GROSS
No. B-02710—BLAISDELL'S PENCIL, blue .....		\$0.10	\$1.00	\$10.75
No. B-02711—BLAISDELL'S PENCIL, red .....		.10	1.00	10.75
No. B-02712—BLAISDELL'S PENCIL, black .....		.10	1.00	10.75
No. B-02713—BLAISDELL'S PENCIL, yellow .....		.10	1.00	10.75
No. B-02714—BLAISDELL'S PENCIL, green .....		.10	1.00	10.75

## Blaisdell's Lumber Crayons

		EACH	DOZ.	GROSS
No. B-02715—BLAISDELL'S LUMBER CRAYON, red, hexagon .....		\$0.10	\$1.00	\$10.00
No. B-02716—BLAISDELL'S LUMBER CRAYON, blue, hexagon .....		.10	1.00	10.00

## Keel

		LB.
No. B-02740—RED CHALK (Keel), chunks, for marking stakes.....		\$0.40



## Dixon's Crayons



No. B-02722

	EACH	DOZ.	GROSS
No. B-02720—DIXON'S LUMBER CRAYON, red, hexagon .....	\$0.10	\$1.25	\$12.00
No. B-02721—DIXON'S LUMBER CRAYON, blue, hexagon .....	.10	1.25	12.00
No. B-02722—DIXON'S LUMBER CRAYON, black, hexagon, extra soft.....	.10	1.00	10.00

## Dixon's Colored Wax Crayons



No. B-02695

A high grade Wax Crayon Pencil, the colors being especially brilliant.

The colors will not rub off nor smear and washes can be applied over them without affecting the colors.

	EACH	DOZ.	GROSS
No. B-02695—DIXON'S COLORED WAX CRAYONS .....	\$0.10	\$1.25	\$12.00

Made in following colors:

- |               |                 |
|---------------|-----------------|
| 1—Light Blue  | 9—Yellow        |
| 2—Medium Blue | 10—Orange       |
| 3—Indigo      | 11—Olive Green  |
| 4—Violet      | 12—Medium Green |
| 5—Pink        | 13—Terra Cotta  |
| 6—Medium Red  | 14—Brown        |
| 7—Lake Red    | 15—Sepia        |
| 8—Carmine     | 16—White        |



## Pencil Holders



No. B-2760

	EACH	DOZ.
No. B-02760—PENCIL LENGTHENER, hexagon, single .....	\$0.05	\$0.60
No. B-02762—PENCIL LENGTHENER, hexagon, double .....	.10	1.20



No. B-02764

	EACH	DOZ.
No. B-02764—PENCIL POINT PROTECTOR, round, with rubber tip .....	\$0.05	\$0.60



No. B-02768

	EACH	DOZ.
No. B-02768—PENCIL POINT PROTECTOR, with rubber tip .....	\$0.10	\$1.20

## Pencil Pointers

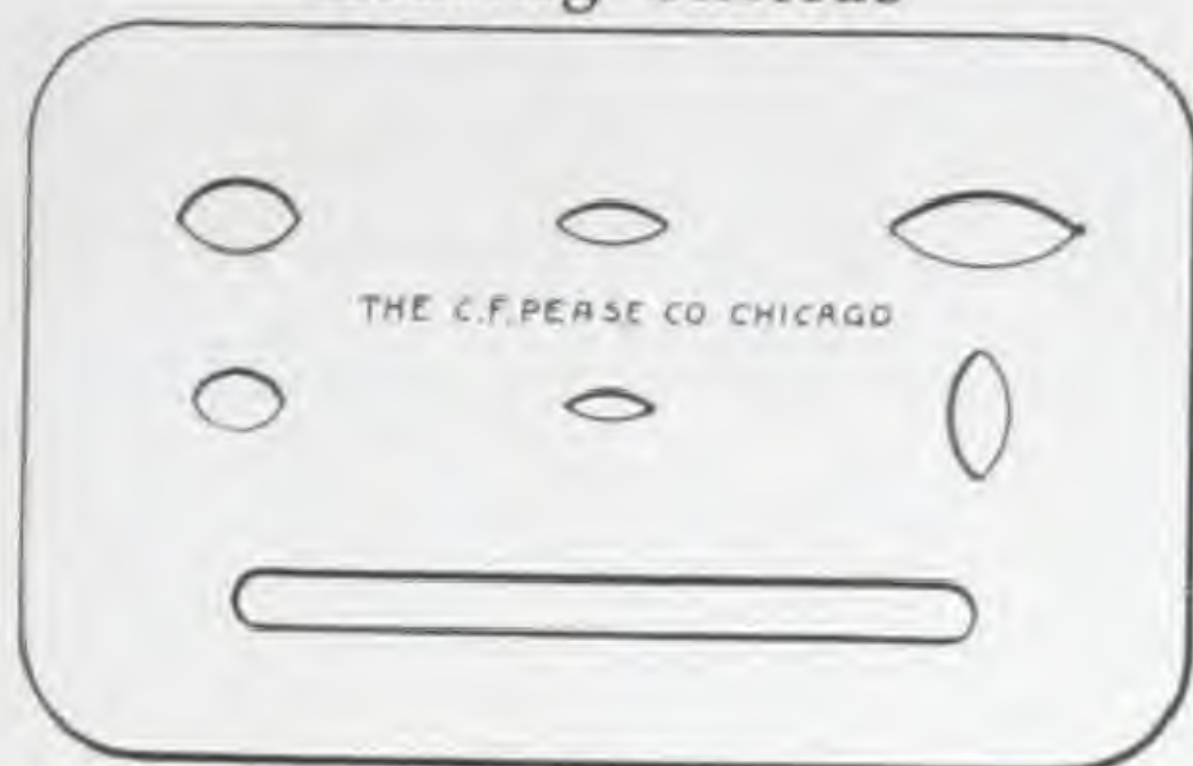


No. B-02772

	EACH	DOZ.
No. B-02772—SAND PAPER BLOCK, 1 1/4 x 6 in., with handle .....	\$0.10	\$1.20
No. B-02774—EMERY BLOCK, 1 1/4 x 6 in., with handle .....	.15	1.50



## Erasing Shields



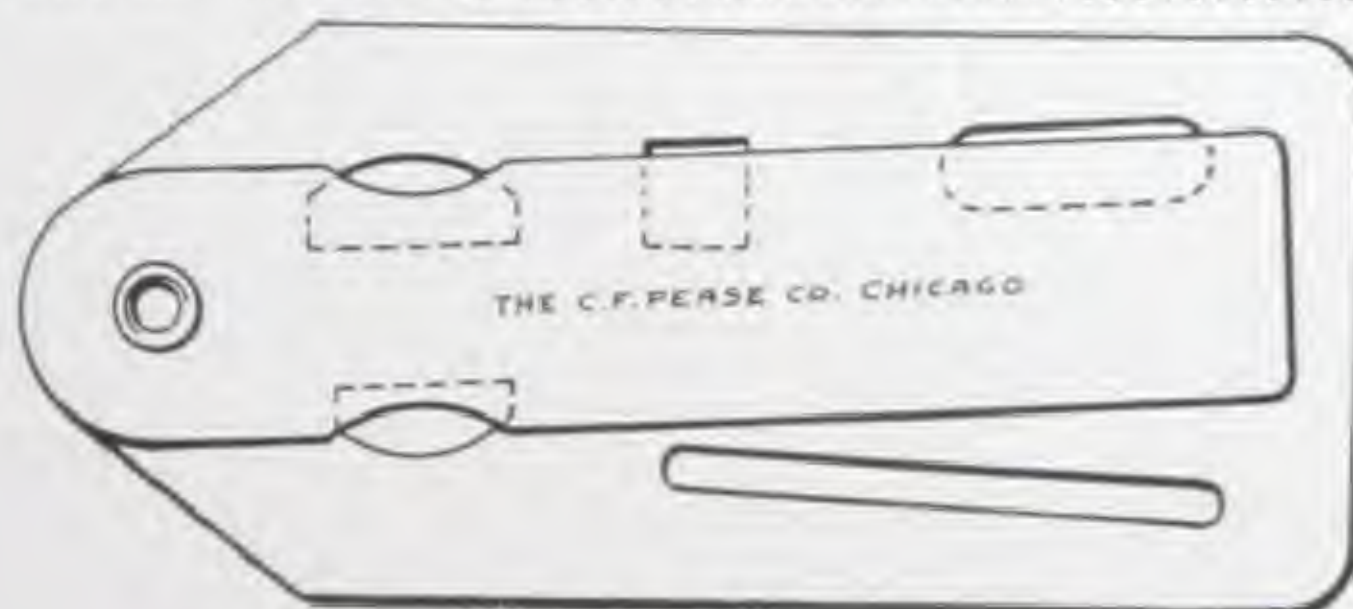
No. B-02780

	EACH	DOZ.
No. B-02780—METAL ERASING SHIELD, nickel plated, $2\frac{3}{8} \times 3\frac{3}{4}$ -in., 7 openings.....	\$0.12	\$1.25
No. B-02782—SPRING STEEL ERASING SHIELD, 14 openings .....	.25	2.50



No. B-02784

	EACH	DOZ.
No. B-02784—CELLULOID ERASING SHIELD, transparent, $2\frac{1}{2} \times 4\frac{1}{2}$ -in. ....	\$0.20	\$2.00
No. B-02786—CELLULOID ERASING SHIELD, transparent, 3x5-in. ....	.25	2.50



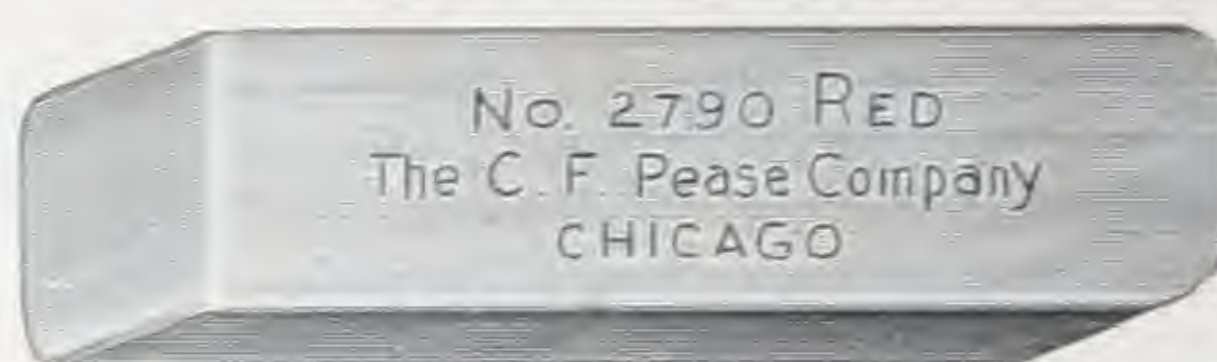
No. B-02788

	EACH	DOZ.
No. B-02788—METAL ADJUSTABLE ERASING SHIELD, nickel-plated, $1\frac{7}{8} \times 4\frac{1}{2}$ -in. ....	\$0.30	\$3.00

By moving the adjustable arm over any opening in the shield an aperture of desired size may be obtained, so that a line closely surrounded by others may be removed neatly without defacing the adjacent lines.



# Pencil Erasers



No. B-02790		EACH	DOZ.	GROSS
No. B-02790—PEASE'S RED ERASERS, beveled both ends, small		\$0.05	\$0.60	\$6.00
No. B-02791—PEASE'S RED ERASERS, beveled both ends, large		.10	1.20	12.00
No. B-02795—PEASE'S GREEN ERASERS, beveled both ends, small		.05	.60	6.00
No. B-02796—PEASE'S GREEN ERASERS, beveled both ends, large		.10	1.20	12.00
No. B-02800—E. FABER'S RUBY ERASERS, beveled both ends, small		.05	.60	6.00
No. B-02801—E. FABER'S RUBY ERASERS, beveled both ends, large		.10	1.20	12.00
No. B-02805—E. FABER'S RUBY ERASERS, beveled one end, small		.06	.70	7.00
No. B-02807—E. FABER'S RUBY ERASERS, beveled one end, large		.12	1.40	14.00
No. B-02810—E. FABER'S EMERALD ERASERS, beveled both ends, small		.05	.60	6.00
No. B-02811—E. FABER'S EMERALD ERASERS, beveled both ends, large		.10	1.20	12.00
No. B-02815—E. FABER'S EMERALD ERASERS, beveled one end, small		.06	.70	7.00
No. B-02817—E. FABER'S EMERALD ERASERS, beveled one end, large		.12	1.40	14.00



No. B-02821



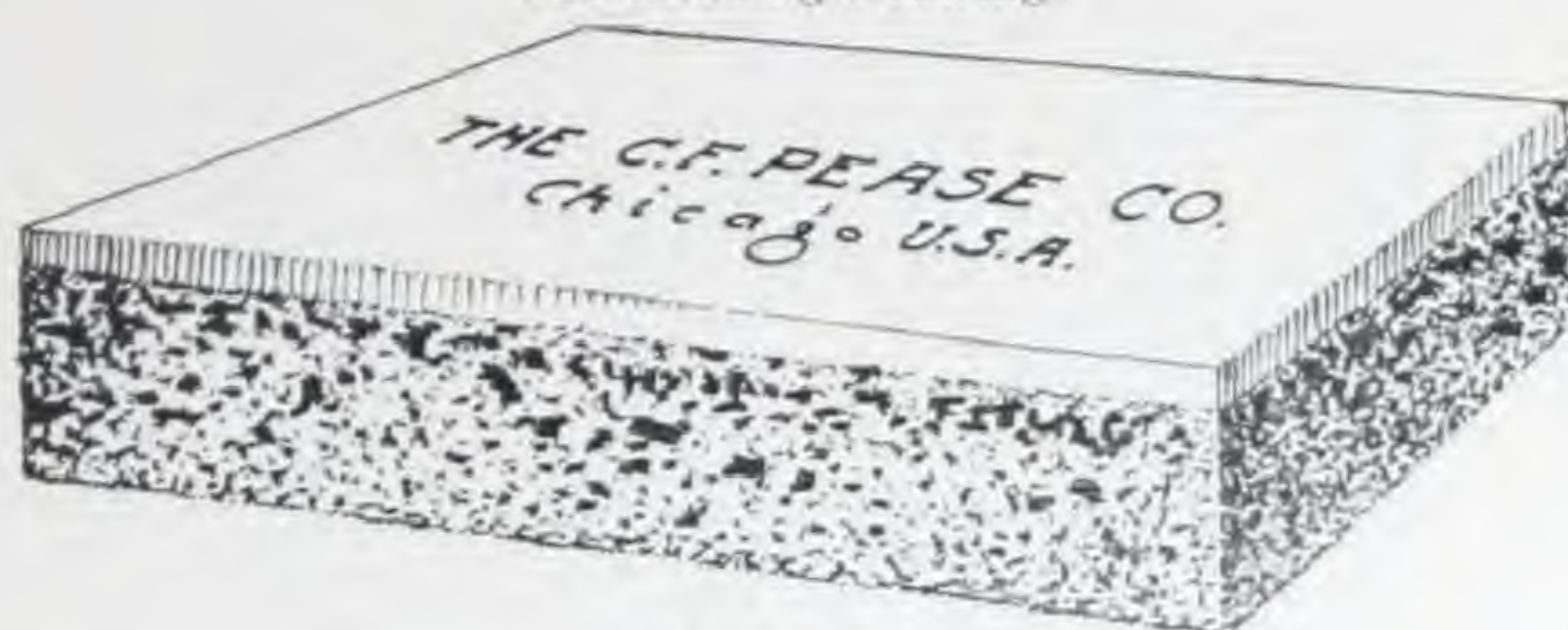
No. B-02822

No. B-02821—PEERLESS PLIABLE RUBBER, gray.				
Pieces to the lb.		40	20	12
Each		\$0.06	.12	.20
Per lb.				\$2.00
No. B-02822—VANDYKE RUBBER, soft and flat.				
Pieces to the lb.		48	24	12
Each		\$0.08	.10	.20
Per lb.				\$2.00



## Sponge Rubber

For Cleaning Drawings



No. B-02837

No. B-02835—SPONGE RUBBER,

Size, inches	1x1x1	1x2x1	1½x2x1	2x3x1	3x4x1	4x6x1
Each	\$0.10	.20	.30	.50	1.00	2.00

No. B-02837—SPONGE RUBBER, with solid rubber back.

Size, 1¼x2½x½ in.	Each	\$0.30
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## Artgum



For cleaning drawings, engravings, paintings, books and papers. Is soft, easily crumbled and entirely free from grit.

	EACH	DOZ.
No. C-02840—ARTGUM, 1½x1½x1 inches	\$0.05	\$0.50
No. C-02842—ARTGUM, 2x1x1 inches	.07	.70
No. C-02844—ARTGUM, 2¼x1½x1½ inches	.10	1.00
No. C-02846—ARTGUM, 3x2x1 inches	.20	2.00
No. C-02848—ARTGUM, 3x3x2 inches	.50	5.00

## Rubber Ink Erasers

No. B-02850—E. FABER'S INK ERASER,

	SMALL	MEDIUM	LARGE
Each	\$0.05	\$0.10	\$0.20
Per 100	4.50	9.00	18.75

No. B-02852—E. FABER'S CIRCULAR INK ERASER,

Each	\$0.05
Per doz.	.60

No. B-02854—E. FABER'S TYPEWRITER ERASER,

	SMALL	LARGE
Each	\$0.05	\$0.10
Per doz.	.60	1.20



## Motor Driven Eraser



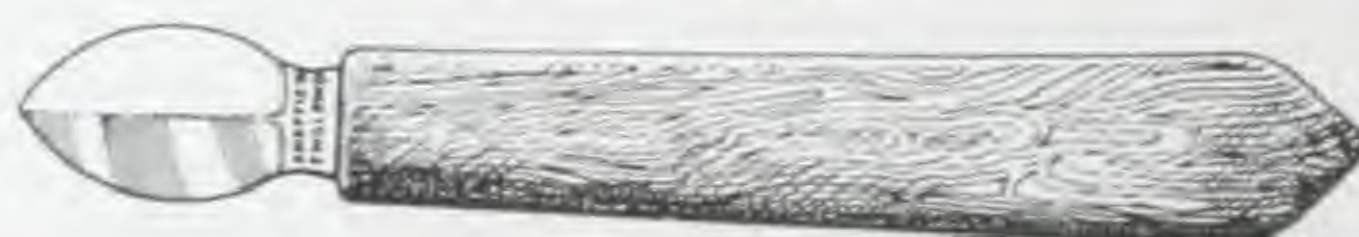
The complete outfit consists of motor for either direct or alternating current, flexible shaft, three circular and three cleaning erasers.

The circular eraser is securely fastened in place by a wing nut to allow for renewals. A cleaning rubber is arranged to touch the rotating circular eraser very gently and remove the ink which would otherwise collect. The flexible shaft is about three feet long, permitting a large tracing to be covered.

The convenience and saving effected by the use of this eraser would warrant the expenditure of several times its cost.

	EACH
No. B-02855—MOTOR DRIVEN ERASER, 110 Volts D. C.....	\$48.50
No. B-02856—MOTOR DRIVEN ERASER, 220 Volts D. C.....	50.00
No. B-02857—MOTOR DRIVEN ERASER, 110 Volts A. C.....	52.25
No. B-02858—MOTOR DRIVEN ERASER, 220 Volts A. C.....	57.75

## Steel Erasers



No. B-02860

	EACH
No. B-02860—STEEL ERASER, cocoa handle, Domestic.....	\$0.45
No. B-02861—STEEL ERASER, cocoa handle, Imported.....	.75



No. B-02864

	EACH
No. B-02864—STEEL ERASER, cocoa handle, Domestic.....	\$0.55
No. B-02866—STEEL ERASER, cocoa handle, Imported.....	.80

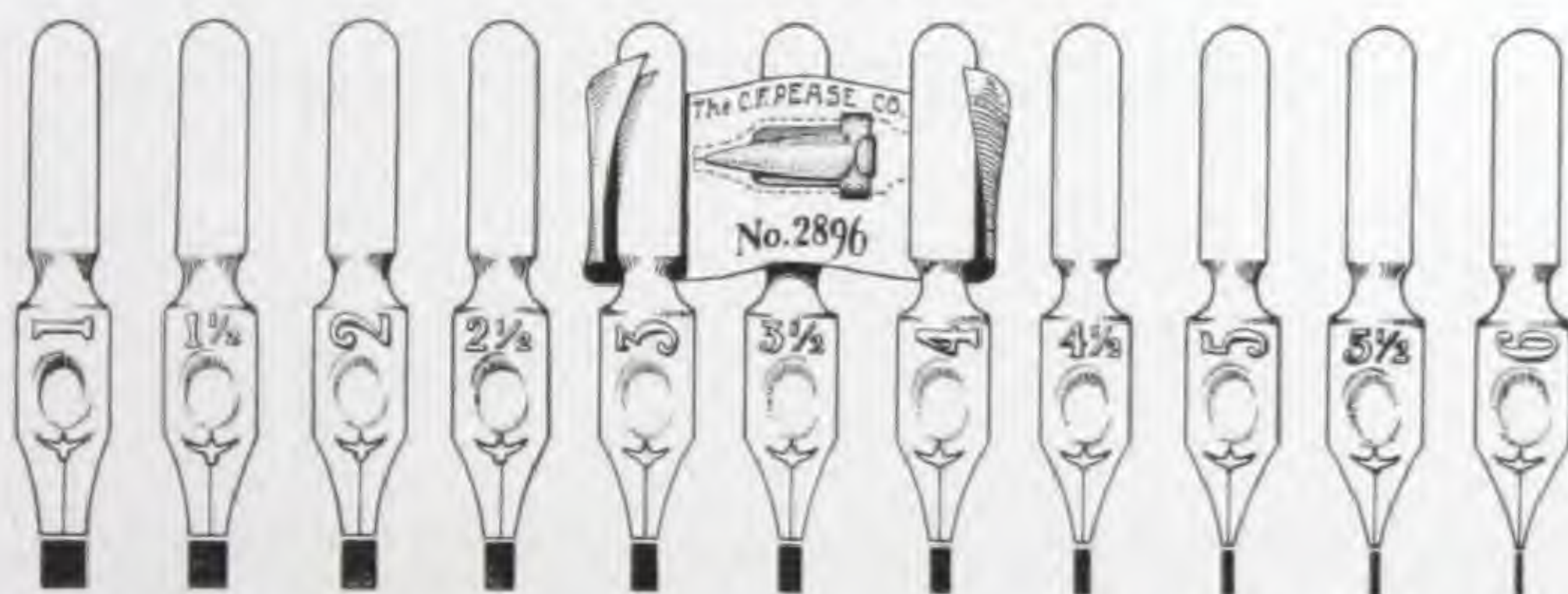


## Steel Lettering and Drawing Pens



	DOZ.	GROSS
No. B-02870—170 GILLOTT'S MAPPING PENS, loose . . . . .	\$0.10	\$1.00
No. B-02871—290 GILLOTT'S LITHOGRAPHIC PENS, loose . . . . .	.50	5.00
No. B-02872—290 GILLOTT'S LITHOGRAPHIC PENS, on cards with holder . . . . .	.60	6.00
No. B-02873—291 GILLOTT'S MAPPING PENS, on cards with holder . . . . .	.60	6.00
No. B-02874—291 GILLOTT'S MAPPING PENS, loose, in gross boxes . . . . .	.50	5.00
No. B-02875—303 GILLOTT'S MAPPING PENS, loose, in gross boxes . . . . .	.12	1.40
No. B-02876—404 GILLOTT'S MAPPING PENS, loose, in gross boxes . . . . .	.10	1.00
No. B-02877—659 GILLOTT'S CROW QUILL PENS, on cards with holder . . . . .	.55	5.50
No. B-02878—850 GILLOTT'S CROW QUILL PENS, long shoul- der, on cards . . . . .	.70	7.50
No. B-02879—FRENCH CROW QUILL PENS, on cards with holders . . . . .	.45	3.50

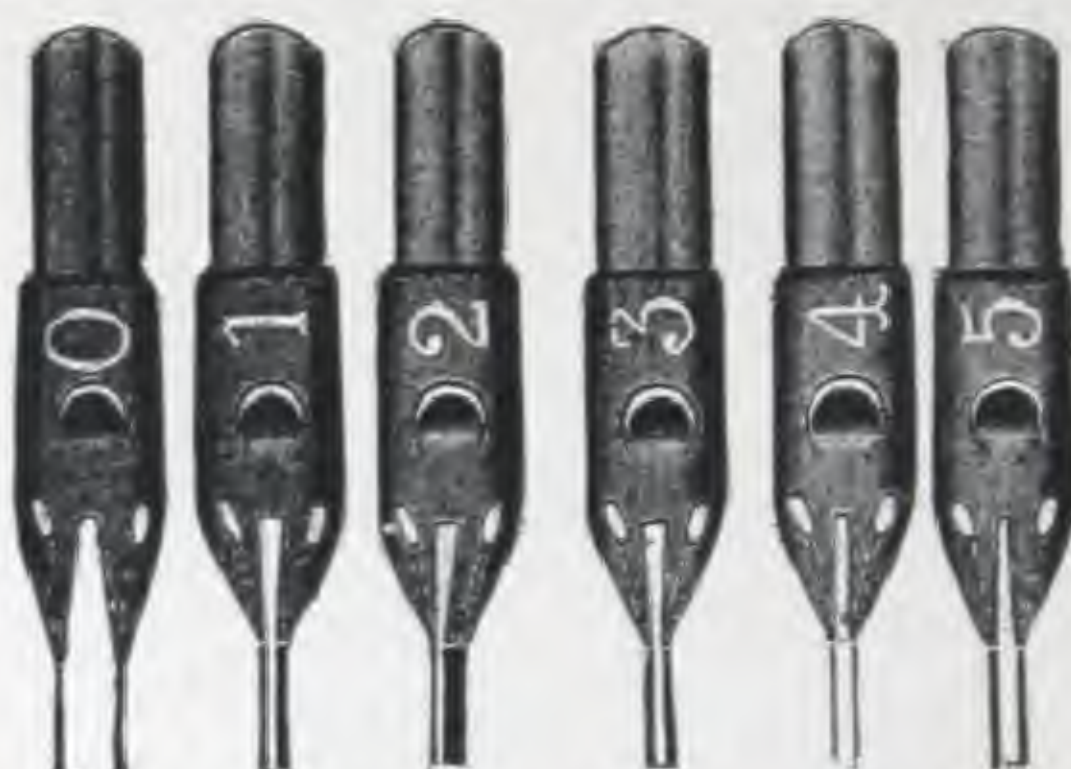
## Round Writing Pens



Nos. 1	1½	2	2½	3	3½	4	4½	5	5½	6	
											DOZ. ¼ GROSS
No. B-02880—ROUND WRITING PENS, any one number.....										\$0.15	\$0.40
No. B-02882—ROUND WRITING PENS, 12 on card, assorted.....										\$0.15	



## Steel Drawing Pens—Continued

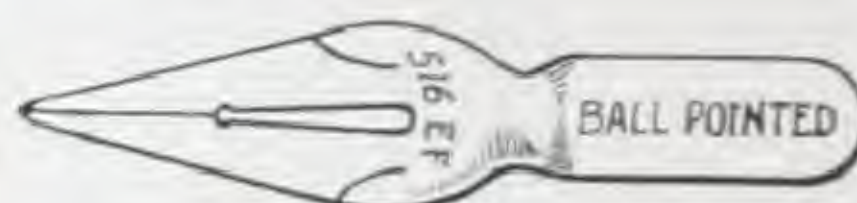


- No. B-02885—DOUBLE POINTED PENS, 6 different numbers, 12 on card, with penholder.....\$0.30  
 No. B-02886—SINGLE AND DOUBLE POINTED PENS, 25 in box, assorted .....\$0.50

## Leonhardt's Ball Pointed Pens



No. B-02887A



No. B-02888A

- |   | DOZ.   | GROSS  |
|---|--------|--------|
| No. B-02887 —LEONHARDT'S BALL POINTED PEN, 506 F... | \$0.15 | \$1.35 |
| No. B-02887A—LEONHARDT'S BALL POINTED PEN, 506 E.F. | .15    | 1.35   |
| No. B-02888 —LEONHARDT'S BALL POINTED PEN, 516 F... | .15    | 1.35   |
| No. B-02888A—LEONHARDT'S BALL POINTED BEN, 516 E.F. | .15    | 1.35   |

## Pen Holders



No. B-02890

- |  | EACH   |
|--|--------|
| No. B-02890—CROW QUILL PEN HOLDER for Gillott's Nos. 659 and 850 pens .....                  | \$0.10 |
| No. B-02892—CROW QUILL PEN HOLDER, improved, of the thickness of an ordinary pen holder..... | .05    |



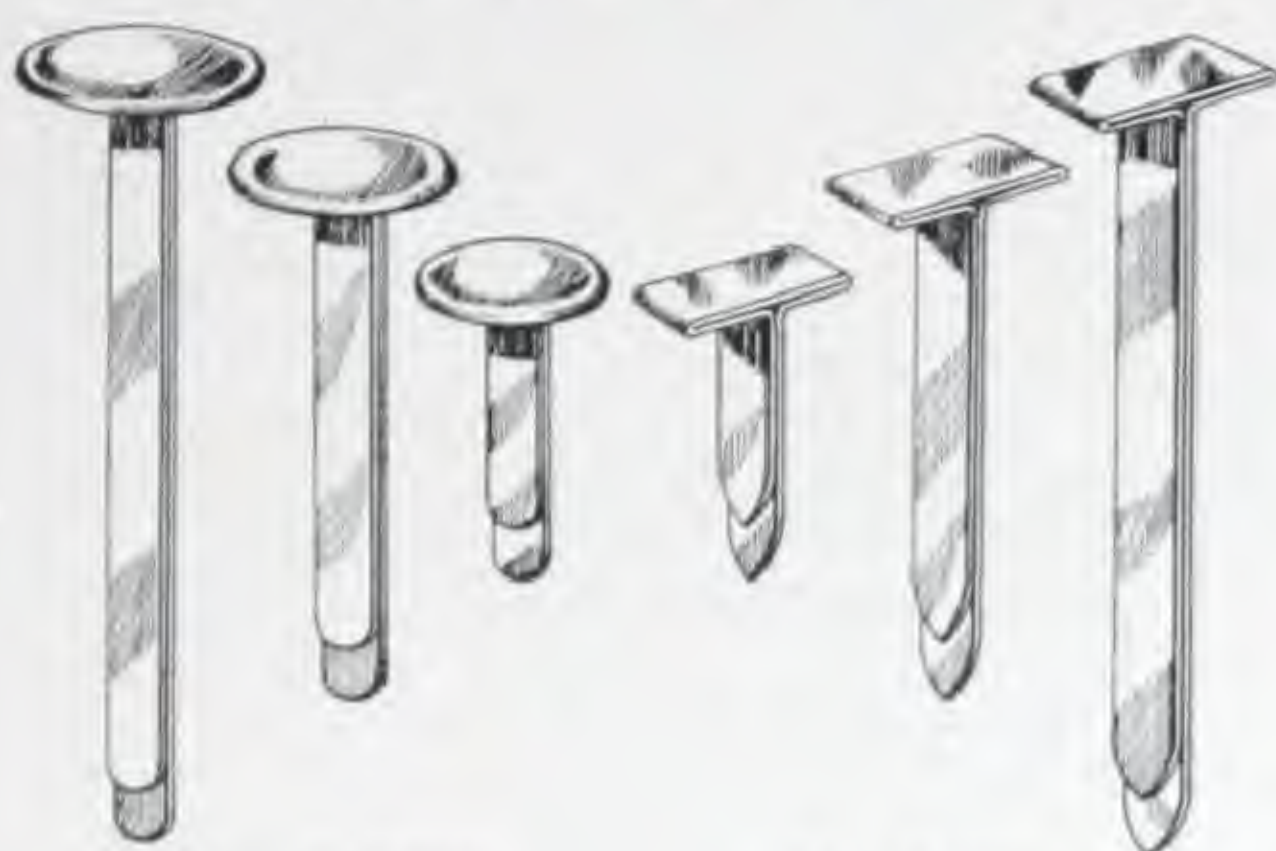
No. B-02896

No. B-02894

- |  | EACH   |
|--|--------|
| No. B-02894—ROUND WRITING PEN HOLDER, single.....      | \$0.10 |
| No. B-02895—ROUND WRITING PEN HOLDER, double.....      | .10    |
| No. B-02896—INK HOLDER, for single or double pens..... | .05    |



## Paper Fasteners



No. B-02900

No. B-02902

No. B-02900—PAPER FASTENERS, ROUND HEADS.

Number	1	2	3	4	5	6
Length, inches	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Box of 100	\$0.20	.25	.30	.40	.75	.85

No. B-02902—PAPER FASTENERS, FLAT HEADS.

Number	1	2	3	4	5	6
Length, inches	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Box of 100	\$0.15	.20	.25	.30	.60	.75

No. B-02904—WASHERS, brass, Nos. 1 and 2, per 100.....\$0.12

## Eyelet Punches and Eyelets



No. B-02906



No. 1.



No. 2.



No. 3.

No. B-02907

No. B-02906—TRIUMPH EYELET PUNCH. Each.....\$3.00

No. B-02907—EYELETS—No. 1, 20c; No. 2, 25c; No. 3, 50c per box of 250



No. B-02910

## Paper Clips



No. B-02912



No. B-02914

No. B-02910—NIAGARA CLIP, 100 in box.....	BOX \$0.15
No. B-02912—GEM CLIP, 100 in box.....	.15
No. B-02914—OWL CLIP, 100 in box.....	.15



# Pure Rubber Bands

## Illustrations Full Size



No. B-02955; B-02958



No. B-02950

No. B-02950—THREAD BANDS, width $\frac{1}{8}$ in.						
Number	8	10	12	14	16	18
Per gross	\$0.15	.20	.24	.28	.35	.45
No. B-02952—THREAD BANDS, width $\frac{1}{8}$ in., in $\frac{1}{4}$ lb. boxes, Nos. 8 to 18						
						Each \$1.00
No. B-02953—THREAD BANDS, width $\frac{1}{8}$ in., assorted lengths, $\frac{1}{4}$ lb. boxes						
						Each \$1.00
No. B-02955—BANDS, width $\frac{1}{8}$ in.						
Number	27	29	30	31	32	33
Per gross	\$0.50	.65	.70	.80	.92	1.00
No. B-02956—BANDS, width $\frac{1}{8}$ in., $\frac{1}{4}$ lb. boxes, assorted						
						Each \$1.00
No. B-02958—BANDS, width $\frac{1}{4}$ in.						
Number			61	62	63	64
Per gross			\$1.00	1.25	1.50	1.75
No. B-02959—BANDS, width $\frac{1}{4}$ in., in $\frac{1}{4}$ lb. boxes, assorted						
						Each \$1.00
No. B-02960—BANDS, assorted, $\frac{1}{8}$ and $\frac{1}{4}$ in. wide, $\frac{1}{4}$ lb. boxes						
						Each 1.00



No. B-02962

No. B-02962—BANDS, assorted, $\frac{1}{8}$ , $\frac{1}{4}$ and $\frac{1}{2}$ in. wide, in oz. boxes.		Each \$0.30
No. B-02963—BANDS, assorted, $\frac{1}{8}$ , $\frac{1}{4}$ and $\frac{1}{2}$ in. wide, in $\frac{1}{4}$ lb. boxes.		Each 1.00



Steel Measuring Tapes  
Engineers' Pattern  
In Leather Cases.



No. B-03000

With  $\frac{1}{4}$ -inch tape; hard leather steel lined case, nickel plated trimmings, two detachable rings. The tape can be readily detached from the case, and we furnish an extra ring for the other end. The steel is heavier and stronger than used in the regular steel tapes, and the cases are thinner. Marked on one side in tenths or twelfths.

No. B-03000—STEEL TAPE, divided in 10ths.

No. B-03002—STEEL TAPE, divided in 12ths.

Length, feet	50	75	100
Each	\$6.00	\$9.50	\$12.00

EACH

No. B-03006—Extra detachable rings or handles, 1 in. round, . . . \$0.50

*Instantaneous* READINGS

A system of marking on Steel Measuring Tapes, so that mistakes are impossible; a great time saver.



The above illustration will give an idea of this marked improvement. Briefly described, it consists of repeating the foot mark, in easily distinguishable figures, at each inch or tenth foot, as the case may be.

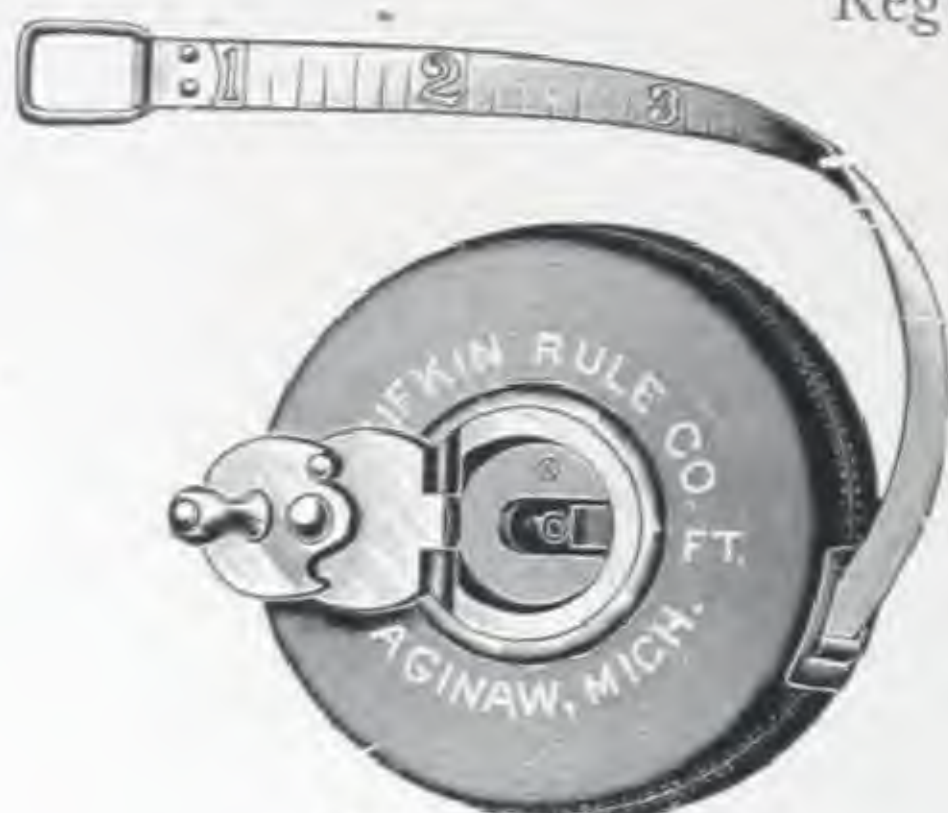
All Lufkin Steel Tapes furnished with either regular or instantaneous readings at the same price.



# Steel Measuring Tapes—Continued

## "Reliable"

Regular Size.



No. B-03010



No. B-03020

With double folding flush handle, opened by pressing small pin or button on opposite side. Hard leather cases, nickel plated trimmings. Measurements guaranteed perfectly accurate. With  $\frac{3}{8}$ -inch tape.

No. B-03010—"RELIABLE" STEEL TAPE, divided in 10ths.

Length, feet..	25	33	50	66	75	100
Each .....	\$4.50	\$5.20	\$7.20	\$9.20	\$10.40	\$12.80

No. B-03012—"RELIABLE" STEEL TAPE, divided in 12ths.

Length, feet..	25	33	50	66	75	100
Each .....	\$4.50	\$5.20	\$7.20	\$9.20	\$10.40	\$12.80

## "Reliable Junior"

Small Size.

A 50-foot Steel Measuring Tape that weighs only five ounces complete, and can be conveniently carried in vest pocket. With  $\frac{1}{4}$ -inch tape.

No. B-03020—"RELIABLE JUNIOR" STEEL TAPE, divided in 10ths.

Length, feet .....	25	50	100
Each .....	\$3.75	\$4.60	\$7.00

No. B-03022—"RELIABLE JUNIOR" STEEL TAPE, divided in 12ths.

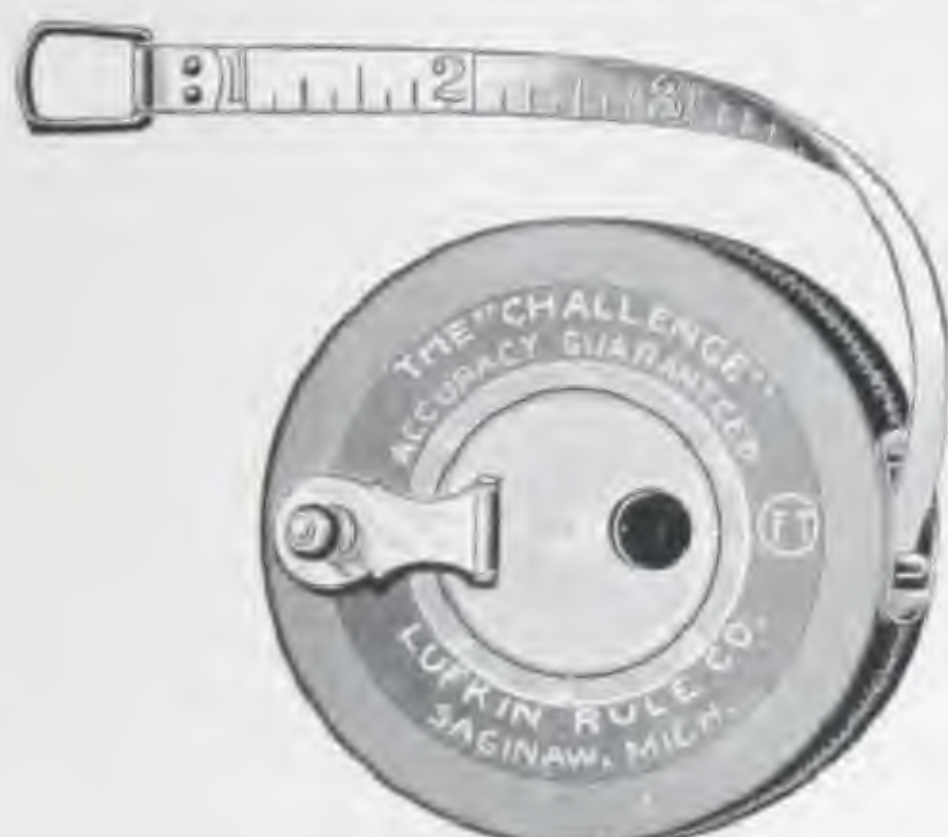
Length, feet .....	25	50	100
Each .....	\$3.75	\$4.60	\$7.00

This tape can be furnished with graduations of feet on one side and meters on the other, or with feet and 12ths on one side and feet and 10ths on the other, at  $2\frac{1}{2}$  cents per foot in addition to the list price.



## Steel Measuring Tapes—Continued

### "Challenge" (Regular Size)



No. B-03030



No. B-03040

No. B-03030—"CHALLENGE" STEEL TAPE, with hard leather case, steel ribbon  $\frac{3}{8}$  inch wide, flush handle, divided in 10ths.

No. B-03032—"CHALLENGE" STEEL TAPE, with hard leather case, steel ribbon  $\frac{3}{8}$  inch wide, flush handle, divided in 12ths.

Length, feet	25	50	75	100
Each	\$3.25	\$4.00	\$5.25	\$6.75

No. B-03034—"CHALLENGE" STEEL TAPE, with hard leather case, steel ribbon  $\frac{3}{8}$  inch wide, flush handle, divided in meters.

Length, meters	15	25	30
Each	\$4.00	\$6.00	\$6.75

No. B-03036—"CHALLENGE" STEEL TAPE, with hard leather case, steel ribbon  $\frac{3}{8}$  inch wide, flush handle, divided in meters and feet in 12ths.

Length, meters	15	25	30
Each	\$5.75	\$8.50	\$10.00

### "Challenge Junior" (Small Size)

The "Challenge Junior" is about one-half the size and weight of our regular "Challenge" Steel Tape, the twenty-five foot tape weighing but three ounces; fifty-foot, five ounces; other sizes in proportion. It is light and compact, yet constructed in a durable manner, and with proper care will last as long as any ordinary tape. To those who desire a tape for light work, one that can be conveniently carried in the pocket, the "Challenge Junior" will prove especially attractive.

"Challenge Junior" Tape, in hard leather case, with flush handle, nickel plated trimmings, divided one side only, with  $\frac{1}{4}$ -inch tape.

No. B-03040—"CHALLENGE JUNIOR" TAPE, divided in feet and 10ths.

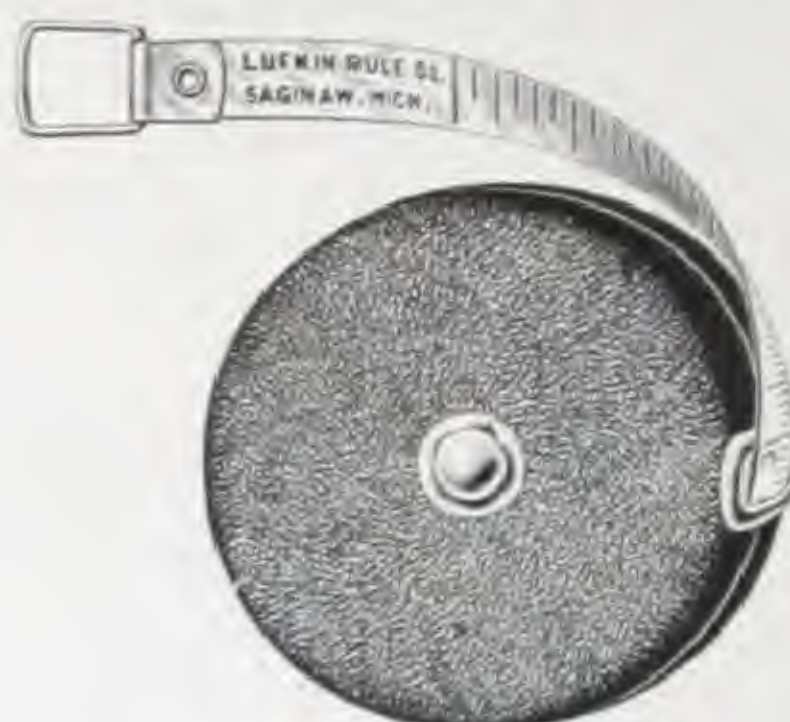
Length, feet	25	50	100
Each	\$3.00	\$3.50	\$5.75

No. B-03042—"CHALLENGE JUNIOR" TAPE, divided in feet and 12ths.

Length, feet	25	50	100
Each	\$3.00	\$3.50	\$5.75



## Pocket Steel Tapes



No. B-03044

Cases of assorted leather, metal lined. Spring wind, center stop. German silver trimmings with  $\frac{1}{4}$ -inch steel tapes.

No. B-03044—POCKET TAPE, divided inches and 16ths.

Length, inches	36	60	72
Each	\$1.00	\$1.50	\$1.75

No. B-03045—POCKET TAPE, divided inches and 16ths one side, feet, 10ths and 100ths, other side.

Length, inches	36	60	72
Each	\$1.20	\$1.75	\$2.00



No. B-03046

Pocket Tapes in German silver cases. Spring wind, center stop, with  $\frac{1}{4}$ -inch steel tapes.

No. B-03046—POCKET TAPE, divided inches and 16ths.

Length, inches	36	60	72	96
Each	\$0.90	\$1.25	\$1.50	\$2.00

No. B-03047—POCKET TAPE, divided inches and 16ths one side, feet, 10ths and 100ths, other side.

Length, inches	36	60	72	96
Each	\$1.00	\$1.40	\$1.75	\$2.25



## Metallic Measuring Tapes

### Flush Handles



No. B-03050



No. B-03060

With patent double folding flush handle, same as "Reliable" Steel Tapes, opened by pressing pin on opposite side. Tape  $\frac{5}{8}$  inch wide, made of best woven linen, with metallic warp. Hard leather case. Nickel plated trimmings. Marked one side only, in 10ths or 12ths.

No. B-03050—METALLIC TAPE, divided in 10ths.

No. B-03052—METALLIC TAPE, divided in 12ths.

Length, feet . . . . .	25	33	50	66	75	100
Each . . . . .	\$2.10	\$2.40	\$2.90	\$3.30	\$3.60	\$4.50

### "Junior" Metallic Tapes

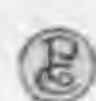
A first-class high grade Metallic Warp Tape,  $\frac{3}{8}$  inch wide; less than one-half the size and weight of a regular Metallic Tape.

No. B-03060—"JUNIOR" METALLIC TAPE, divided in 10ths.

No. B-03062—"JUNIOR" METALLIC TAPE, divided in 12ths.

Length, feet . . . . .	25	50
Each . . . . .	\$1.80	\$2.25





## Metallic Measuring Tapes—Continued



No. B-03070

Tape  $\frac{5}{8}$  inch wide, made of best woven linen, with metallic warp; hard leather case, folding handle and brass trimmings.

No. B-03070—METALLIC TAPE, divided in 10ths.

No. B-03072—METALLIC TAPE, divided in 12ths.

Length, feet . . .	25	33	50	66	75	100
Each . . . . .	\$1.80	\$2.10	\$2.60	\$3.00	\$3.30	\$4.50

## Chesterman's Metallic Tapes

Red leather case; tape  $\frac{5}{8}$  inch wide, wire woven; folding handle.

No. B-03080—METALLIC TAPE, divided in 10ths.

No. B-03082—METALLIC TAPE, divided in 12ths.

Length, feet . . . . .	25	50	75	100
Each . . . . .	\$2.70	\$3.90	\$4.95	\$6.30

## Metallic Tapes, without Cases

$\frac{5}{8}$  inch wide.

No. B-03090—METALLIC TAPE, divided in 10ths.

No. B-03091—METALLIC TAPE, divided in 12ths.

Length, feet . . . . .	25	33	50	66	75	100
Marked one side. Each. .	\$0.80	\$1.00	\$1.40	\$1.60	\$1.80	\$2.60

No. B-03092—METALLIC TAPE, divided in 10ths and links.

No. B-03093—METALLIC TAPE, divided in 12ths and links.

Length, feet . . . . .	25	33	50	66	75	100
Marked both sides. Each. .	\$0.90	\$1.10	\$1.50	\$1.80	\$2.00	\$2.90

No. B-03094—METALLIC TAPE, divided in meters.

Length, meters . . . . .	10	15	20	25	30
Marked one side. Each. .	\$1.00	\$1.40	\$1.60	\$2.10	\$2.60

$\frac{3}{8}$  inch wide.

No. B-03096—METALLIC TAPE, divided in 10ths.

No. B-03097—METALLIC TAPE, divided in 12ths.

Length, feet . . . . .	25	33	50	66
Marked one side. Each. .	\$0.75	\$0.90	\$1.25	\$1.50



## Improved Surveyors' Chain Tapes



No. B-03100

Heavy  $\frac{1}{4}$  inch steel tape. Nicely finished hardwood reel, with large metal folding handle and two large detachable rings. Trimmings nickel-plated.

Graduated every foot, the end foot in tenths or twelfths. Unless otherwise specified, these tapes will be furnished with end feet graduated in tenths. The graduations are not made with rivets, which weaken the tape; or with soft metal, which makes it clumsy and wears off; but wherever graduated the steel has a bright, raised surface with the figures etched in. The steel being tempered and of the finest quality, the graduations and figures will never be effaced, but will always show up clear and distinct. The frame and winding apparatus is strong, durable and compact, and can be conveniently carried in the pocket when the tape is not in use. The tape can be easily detached from the frame and is provided with two large and strong detachable handles or rings. When the tape is not in use these handles are fastened to the frame where they will not get lost, and at the same time they serve as a convenient handle for carrying the complete tape.

As a convenient, strong, durable chain tape for heavy outdoor work this excels all others. Guaranteed in every way.

### No. B-03100—IMPROVED SURVEYORS' CHAIN TAPE.

Length, feet .....	100	200	300
Each, complete .....	\$6.00	\$9.00	\$12.50

### No. B-03102—TAPE ONLY, WITH TWO RINGS.

Length, feet .....	100	200	300
Each .....	\$4.00	\$7.00	\$10.50

### No. B-03104—PLAIN REEL ONLY. Each..... 2.00

### No. B-03105—PAIR OF RINGS OR HANDLES. Each.... .50



## Surveyors' Chain Tapes—Continued



No. B-03106, Tape Complete, with Reel



Reel Only, when Folded

This tape, with detachable rings, is the same as described on page 217, but the reel has steel cross-arms, which keep the tape in place when winding or unwinding. When the tape is in use and removed from the reel, the metal cross-arms of the reel fold into the wooden frame, as shown above, so that even the large sizes can be conveniently carried in the pocket. The reel can be firmly held by placing the hand in the strong leather loop fastened to the side.

No. B-03106—SURVEYORS' CHAIN TAPE, complete with reel.				
Length, feet .....	100	150	200	300
Each .....	\$7.50	\$9.00	\$10.00	\$14.00
No. B-03107—TAPE only. Each....				
	4.00	5.50	7.00	10.00

## Lufkin Babbitt Metal Tapes

Graduations stamped on Babbitt Metal at each foot or link, and end foot or link in tenths.

Each tape provided with pair of detached rings or rawhide thongs as desired.

### TAPE ONLY WITH RINGS.

3/16 in. wide	5/16 in. wide	Length	Each
No. B-03110	No. B-03110A	100 feet .....	\$ 4.00
No. B-03111	No. B-03111A	200 feet .....	6.35
No. B-03112	No. B-03112A	300 feet .....	8.40
No. B-03113	No. B-03113A	500 feet .....	13.65
No. B-03114	No. B-03114A	100 links .....	3.25
No. B-03115	No. B-03115A	200 links .....	5.25
No. B-03116—REEL, for 100 foot or 100 link tape.....			2.50



## Chicago Steel Tapes

5/16 inch wide.



No. B-03120

CHICAGO STEEL TAPE, with metallic reel for short tapes and tapes without shoulders.

Graduation beginning at end of steel ribbon	Graduation beginning 6 in. from end of steel ribbon	Length	Without reel Each	With wooden reel Each	With metallic reel Each
No. B-03120	No. B-03120A	50 feet . . . . .	\$ 3.75	\$ 5.30	\$ 5.60
No. B-03121	No. B-03121A	100 feet . . . . .	4.70	6.25	6.60
No. B-03122	No. B-03122A	200 feet . . . . .	7.50	9.00	11.25
No. B-03123	No. B-03123A	300 feet . . . . .	11.25	14.35	16.25
No. B-03124	No. B-03124A	500 feet . . . . .	17.50	20.60	23.75
No. B-03125	No. B-03125A	100 links . . . . .	3.75	5.30	5.60
No. B-03126	No. B-03126A	200 links . . . . .	6.25	7.80	9.40
No. B-03130	No. B-03130A	20 meters . . . . .	3.75	5.30	5.60
No. B-03131	No. B-03131A	40 meters . . . . .	6.25	7.80	9.40

For tapes with shoulders add 40 cents to price of each tape.

For tapes marked both sides add 1 cent per mark.

Metallic Reel not furnished for tapes with shoulders.

3/16 inch tape furnished, if specified, at same price as above.



## Tape Repair Outfits



No. B-03140

No. B-03140—PUNCH AND RIVETER OUTFIT, complete. Each.....\$5.00  
 No. B-03141—EXTRA EYELETS, 1,000 in package, 2 lengths. Per pack-  
 age ..... 1.25

## Chicago Tape Splices

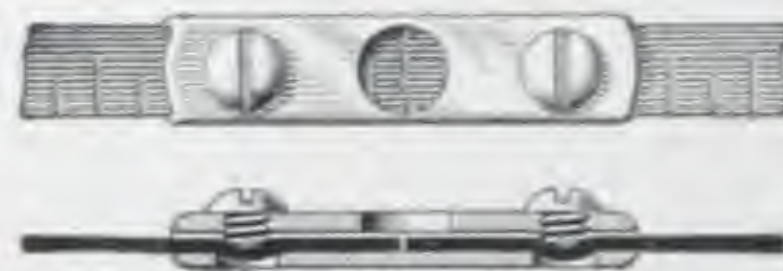


No. B-03145

This splice consists of a thin sheet of metal folded in the shape of a sleeve and coated with a combination of solder and flux so sensitive that the heat of a common lighted match will bring about a perfect adhesion between tape and sleeve. In ordering state width of tape.

No. B-03145—CHICAGO TAPE SPLICE. Per dozen sleeves.....\$0.60

## "Little Giant" Tape Splice



No. B-03147

Will repair a broken tape in a minute. Attach with knife blade. For temporary or permanent repair. In sizes to fit all tapes—give width used.

No. B-03147—LITTLE GIANT TAPE SPLICE. Each.....\$0.35





## Measuring Chains

U. S. Standard.

Steel, No. 12 Gauge.

	EACH
No. B-03150—CHAIN, 33 ft., brazed links and rings, brass handles.....	\$ 5.50
No. B-03151—CHAIN, 50 ft., brazed links and rings, brass handles.....	6.00
No. B-03152—CHAIN, 66 ft., brazed links and rings, brass handles.....	10.00
No. B-03153—CHAIN, 100 ft., brazed links and rings, brass handles.....	11.00
No. B-03154—CHAIN, 33 ft., oval rings, brass handles.....	3.50
No. B-03155—CHAIN, 50 ft., oval rings, brass handles.....	4.50
No. B-03156—CHAIN, 66 ft., oval rings, brass handles.....	6.50
No. B-03157—CHAIN, 100 ft., oval rings, brass handles.....	8.00

## Arrows or Marking Pins



No. B-03160



No. B-03164



No. B-03170

	SET
No. B-03160—STEEL ARROWS, 11 in set, 10 inches long, W. G. 6.....	\$1.20
No. B-03161—STEEL ARROWS, 11 in set, 14 inches long, W. G. 6.....	1.50
No. B-03162—STEEL ARROWS, 11 in set, 14 inches long, W. G. 6, with white enameled disc, 2½ inches diameter, with red figures 1 to 11,.....	5.00
No. B-03164—STEEL ARROWS, 3/16 inch square, 11 in set, 14 inches long; nicely nickel plated; fitted with red flag.....	2.50

## Chicago Steel Arrows

These are made of the best quality of hardened steel, 3/16 inch round and 14 inches long. They are japanned red and white, alternating each inch. They much more quickly catch the eye in brush and grass when so painted.

No. B-03170—SET OF 11 ARROWS, without quiver. Per set.....	\$2.00
No. B-03172—QUIVER, including strap. Shaped for convenient carrying when strapped around the waist. Each.....	1.00



## Tape Hook



For attaching to steel tapes. Measures from inside of hook. Brass, nickel plated. For  $\frac{1}{4}$  or  $\frac{3}{8}$  inch tapes.

No. B-03178—TAPE HOOK. Each.....\$0.50

## Clamp Handles



For attaching to any part of a long steel tape, thus making it adaptable to any desired length. Brass, nickel plated; weight 4 oz.

No. B-03179—CLAMP HANDLE. Each.....\$1.50

## Stake Tacks

No. B-03180—STAKE TACKS, galvanized. Per 4-ounce box.....\$0.15

No. B-03182—STAKE TACKS, galvanized. Per pound......50

## Spads

No. B-03185—SURVEYING SPADS, for suspending plumb bob. In tin box containing 50, per box.....\$0.75

## Timber Scribes



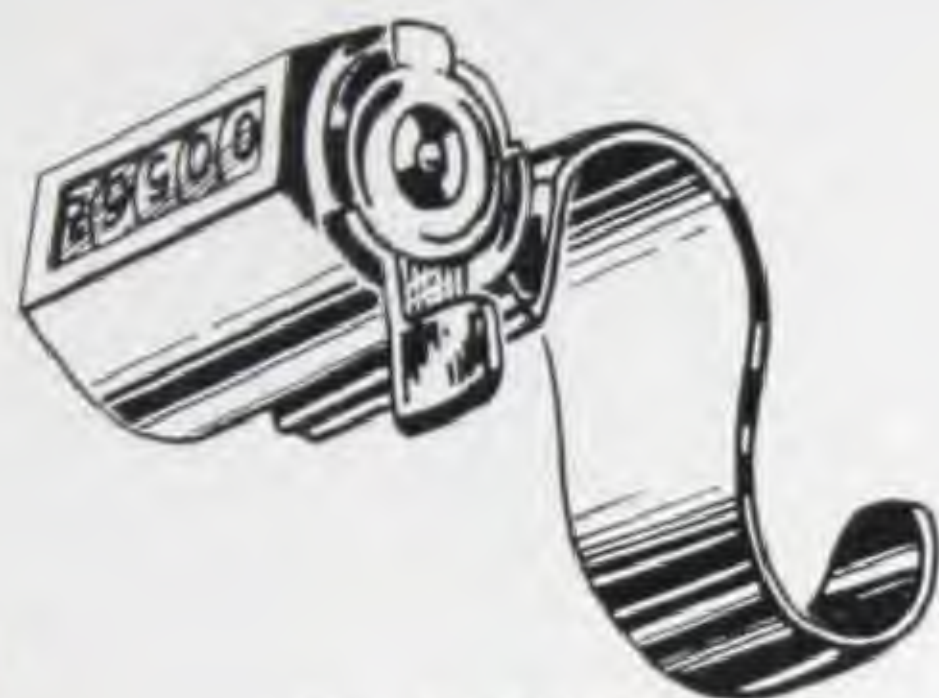
No. B-03190

No. B-03190—TIMBER SCRIBE OR TREE MARKER, small.....EACH \$1.00

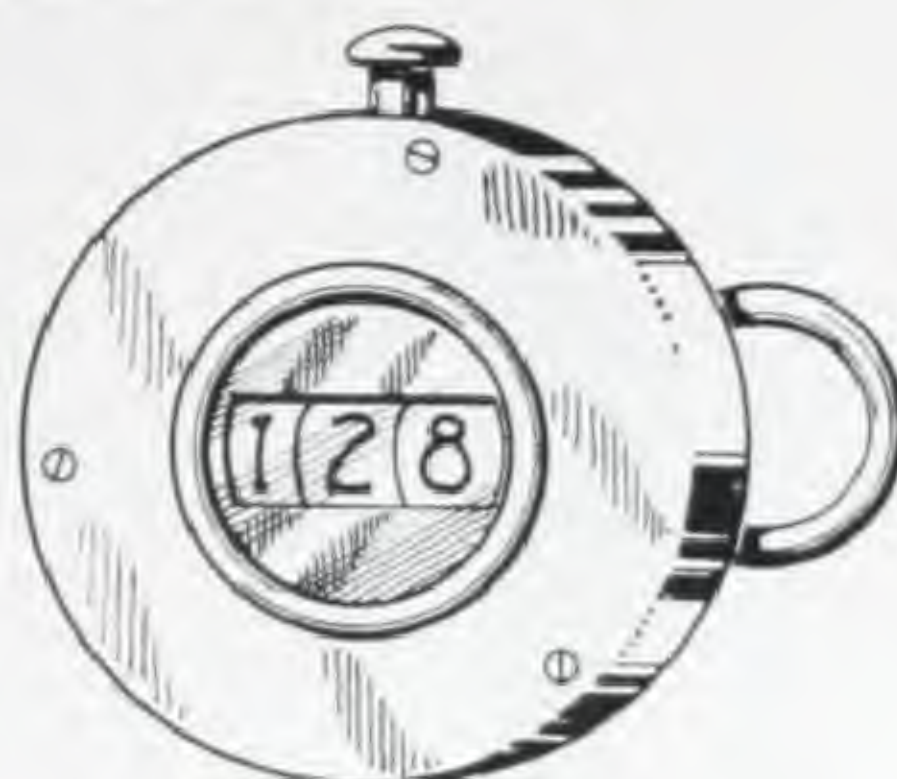
No. B-03192—TIMBER SCRIBE OR TREE MARKER, large..... 1.25



## Tallying Machines



No. B-03195



No. B-03196

	EACH
No. B-03195—TALLYING MACHINE, nickel plated, registers to 99,999 .....	\$2.00
No. B-03196—TALLYING MACHINE, nickel plated, registers to 999 .....	2.50

## Mercury Plumb Bobs



No. B-03204

These Plumb Bobs are made of solid steel, nickel plated, bored out in the center and filled with mercury, thus combining great weight in proportion to the size. Each provided with a braided silk line.

	EACH
No. B-03200—MERCURY PLUMB BOB, 3½ oz. ....	\$1.50
No. B-03202—MERCURY PLUMB BOB, 6 oz. ....	2.00
No. B-03204—MERCURY PLUMB BOB, 12 oz. ....	2.60
No. B-03206—MERCURY PLUMB BOB, 16 oz. ....	3.25

## Plumb Bob Cords

	YARD
No. B-03210—PLUMB BOB CORD, best linen; thin, medium or thick .....	\$0.02
No. B-03212—PLUMB BOB CORD, best braided silk, medium or thick .....	.06



# Brass Plumb Bobs



No. B-03220



No. B-03230

## With Short Necks

			Each
No. B-03218—PLUMB BOB,	2 oz., steel point, screw cap.....	\$0.55	
No. B-03219—PLUMB BOB,	4 oz., steel point, screw cap.....	.75	
No. B-03220—PLUMB BOB,	6 oz., steel point, screw cap.....	1.25	
No. B-03221—PLUMB BOB,	8 oz., steel point, screw cap.....	1.50	
No. B-03222—PLUMB BOB,	10 oz., steel point, screw cap.....	1.65	
No. B-03223—PLUMB BOB,	12 oz., steel point, screw cap.....	1.80	
No. B-03224—PLUMB BOB,	14 oz., steel point, screw cap.....	2.00	
No. B-03225—PLUMB BOB,	16 oz., steel point, screw cap.....	2.10	
No. B-03226—PLUMB BOB,	24 oz., steel point, screw cap.....	2.70	

## With Long Necks

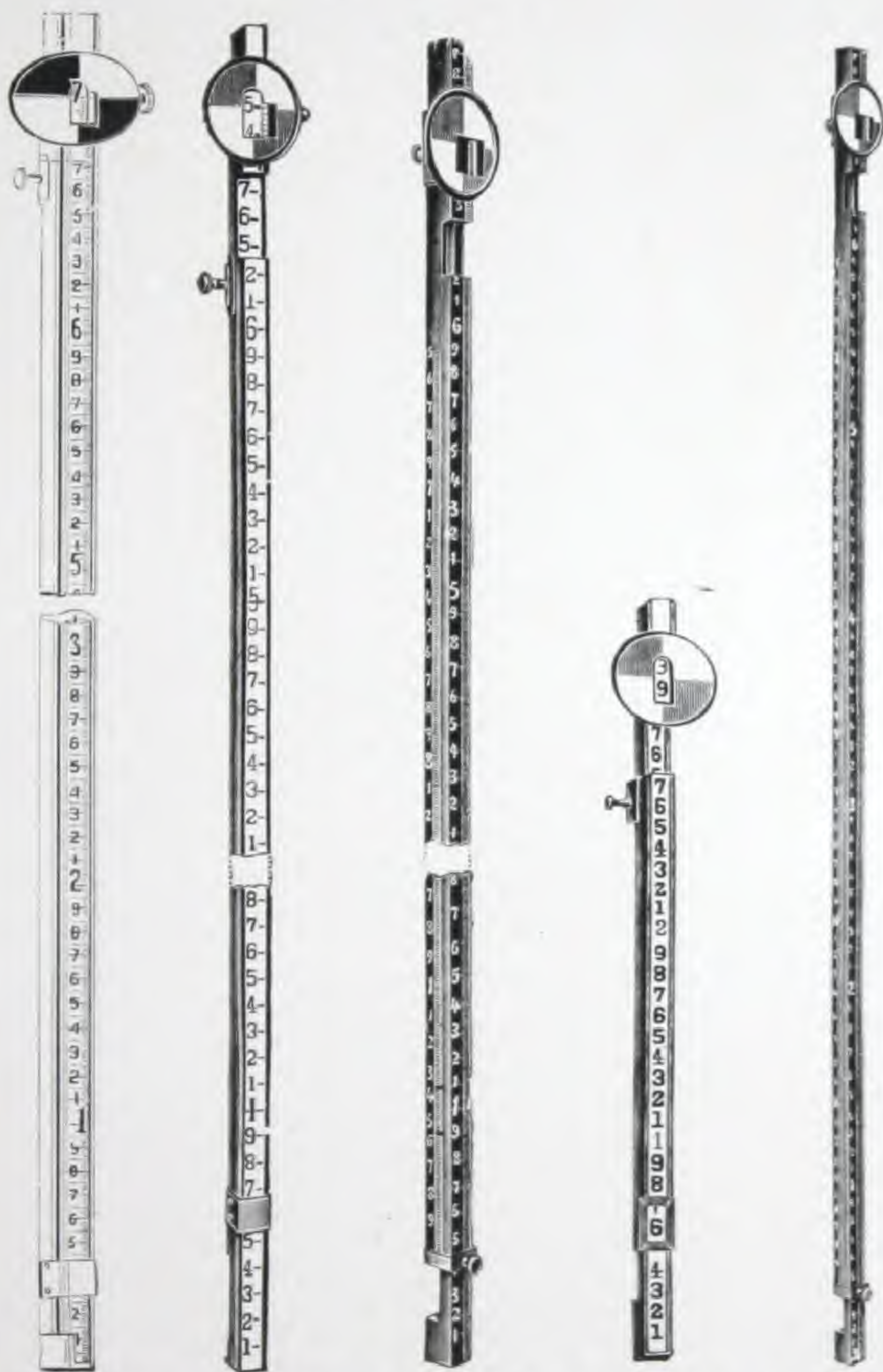
		Each
No. B-03230—PLUMB BOB,	2 oz., steel point, screw cap.....	\$0.55
No. B-03231—PLUMB BOB,	4 oz., steel point, screw cap.....	.75
No. B-03232—PLUMB BOB,	6 oz., steel point, screw cap.....	1.25
No. B-03233—PLUMB BOB,	8 oz., steel point, screw cap.....	1.50
No. B-03234—PLUMB BOB,	10 oz., steel point, screw cap.....	1.65
No. B-03235—PLUMB BOB,	12 oz., steel point, screw cap.....	1.80
No. B-03236—PLUMB BOB,	14 oz., steel point, screw cap.....	2.00
No. B-03237—PLUMB BOB,	16 oz., steel point, screw cap.....	2.10
No. B-03238—PLUMB BOB,	18 oz., steel point, screw cap.....	2.20
No. B-03239—PLUMB BOB,	20 oz., steel point, screw cap.....	2.35
No. B-03240—PLUMB BOB,	22 oz., steel point, screw cap.....	2.50
No. B-03241—PLUMB BOB,	24 oz., steel point, screw cap.....	2.70
No. B-03245—ADJUSTABLE PLUMB BOB,	brass, 10 oz., with concealed reel, on which the line is wound and held by friction at any point of its length.....	2.50

## Iron Plumb Bobs

	Each
No. B-03247—IRON PLUMB BOB, 7 oz.....	\$0.60



# Leveling Rods



No. B-03302 No. B-03304 No. B-03308 No. B-03316 No. B-03320

For description and prices, see page 226.



## Leveling Rods—Continued

	Each
No. B-03300—PHILADELPHIA ROD, hardwood, divided into feet and 10ths, vernier reading to 100ths, with target, vernier and clamp, 7 feet, sliding out to 13 feet .....	\$15.00
No. B-03302—PHILADELPHIA ROD, like No. B-03300, but divided into feet, 10ths and 100ths, vernier reading to 1000ths .....	15.00
No. B-03304—LIGHT PHILADELPHIA ROD, hardwood, divided into feet and 10ths, vernier reading to 100ths, with target, vernier and clamp, 6½ feet, sliding out to 12 feet .....	13.00
No. B-03306—LIGHT PHILADELPHIA ROD, like No. B-03304, but divided into feet, 10ths and 100ths, vernier reading to 1000ths .....	13.00
No. B-03308—PHILADELPHIA METRIC ROD, hardwood, divided into meters, dm. and cm., vernier reading to mm., with target, vernier and clamp, 2.2 meters, sliding out to 4 meters .....	15.00
No. B-03310—MINING ROD, hardwood, divided into feet and 10ths, vernier reading to 100ths, with target, vernier and clamp, 3 feet, sliding out to 5 feet .....	11.40
No. B-03312—MINING ROD, like No. B-03310, but divided into feet, 10ths and 100ths, vernier reading to 1000ths .....	11.40
No. B-03314—MINING ROD, hardwood, divided into feet and 10ths, vernier reading to 100ths, with target, vernier and clamp, 5 feet, sliding out to 9 feet ..	12.00
No. B-03316—MINING ROD, like No. B-03314, but divided into feet, 10ths and 100ths, vernier reading to 1000ths ..	12.00
No. B-03318—NEW YORK ROD, hardwood, light color, divided into feet, 10ths and 100ths, vernier reading to 1000ths, with target, vernier and clamp, 6½ feet, sliding out to 12 feet .....	14.00
No. B-03320—ARCHITECTS' ROD, hardwood, light color, divided into feet, inches and 8ths, target and clamp, vernier reading to 64th in., 5½ feet, sliding out to 10 feet .....	6.00
No. B-03322—ARCHITECTS' ROD, like No. B-03320, but divided into feet, 10ths and 100ths, vernier reading to 1000ths .....	6.00

Rods Nos. B-03300, B-03302, B-03304, B-03306 fitted with Oval Target if desired.

Same rods fitted with Rolling Angle Target, add each, \$1.00.



## Leveling Rods—Continued

- No. B-03340—STADIA ROD, self-reading, folding, with strong brass hinge; six feet closed, opening to twelve feet. Each... \$10.00
- No. B-03345—CROSS SECTION ROD, ten feet, divided into feet, 10ths and 100ths, on both sides; level bubble at each end, and opening for the hand. Each.... 10.00

## Ranging Poles

- No. B-03350—RANGING POLE, of best seasoned wood, octagonal, tapered, painted red and white alternately every foot.
- |              |        |        |        |
|--------------|--------|--------|--------|
| Length ..... | 6 ft.  | 8 ft.  | 10 ft. |
| Each .....   | \$2.00 | \$2.25 | \$2.50 |
- No. B-03355—RANGING POLE, of best seasoned wood, round, tapered, painted red and white alternately every foot.
- |              |        |        |        |
|--------------|--------|--------|--------|
| Length ..... | 6 ft.  | 8 ft.  | 10 ft. |
| Each .....   | \$2.00 | \$2.25 | \$2.50 |
- No. B-03360—STEEL RANGING POLE,  $\frac{1}{2}$  inch diameter, turned and hardened points, painted red and white alternately every foot.
- |              |        |        |
|--------------|--------|--------|
| Length ..... | 6 ft.  | 8 ft.  |
| Each .....   | \$2.75 | \$3.00 |
- No. B-03365—IRON TUBULAR RANGING POLE,  $\frac{7}{8}$  inch diameter, painted red and white alternately every foot.
- |              |        |        |        |
|--------------|--------|--------|--------|
| Length ..... | 6 ft.  | 8 ft.  | 10 ft. |
| Each .....   | \$2.75 | \$3.00 | \$3.50 |

## Chicago Ranging Poles

The Chicago Ranging Pole is in two sections, each  $4\frac{1}{2}$  feet long, lengthening out to  $8\frac{1}{2}$  feet,  $1\frac{1}{16}$  inches diameter, jointed, with metal telescope tubing, perfectly fitted, making an absolutely rigid pole. Shod with a brass shoe and steel tip. The joints have a spring catch, which prevents them from being pulled apart. Furnished with strong two-pocket canvas bag.

- No. B-03375—CHICAGO RANGING POLE, hardwood, steel tubing, round, sectional. Each... \$3.75

The Chicago Mining Pole is in three sections, each 33 inches long, lengthening out to  $7\frac{1}{4}$  feet,  $\frac{5}{8}$  inch in diameter, jointed, with telescope tubing, perfectly fitted, making an absolutely rigid pole. Shod with brass shoe and iron tip. The joints have a spring catch, which prevents them from being pulled apart. Furnished in strong three-pocket bag. Is very light and very strong.

- No. B-03380—CHICAGO MINING POLE, metal, round,  $\frac{5}{8}$  inch diameter, sectional. Each... \$3.75



# Leveling Rods and Poles



No. B-03350

No. B-03375 No. B-03380

No. B-03365

For description and prices, see page 227.





## Chicago Leveling Rods



No. B-03330 No. B-03331 No. B-03332



No. B-03338



No. B-03339

The Chicago Leveling Rods are very light and compact. The joints are made of metal and nickel plated, and are locked with an automatic spring catch, thus making the entire rod very rigid.

The rods are made of light, well seasoned hardwood, with fine mahogany finish. The telescoping joints being perfectly flush with the wooden sections, its weight, due to its manner of jointing, is nearly one-half that of the old style rods.

For prices, see page 230.



## Chicago Leveling Rods—Continued

It is made of 3 or 4 pieces of selected hardwood, 2 inches wide, 1 inch thick and  $4\frac{1}{2}$  feet long. The face has beaded edges to protect the graduations. These pieces are finished in natural color and hand polished. They are joined together by telescope (metal to metal) sockets, fitting perfectly and highly polished, thus avoiding errors by the parts slipping on the clamps, so common in other rods.

The rods are furnished in strong, cloth sacks, with three or four pockets folding upon each other, thus making a very convenient and handy package.

The Chicago Leveling Rod is essentially a self-reading rod, but will be furnished with target if desired.

### Chicago Leveling Rods without Targets

No. B-03330—CHICAGO ROD in 3 sections of $4\frac{1}{2}$ feet each, total length $12\frac{1}{2}$ feet, self-reading, divided in feet, 10ths and 100ths. Each.....	\$10.60
No. B-03331—CHICAGO ROD, same as No. B-03330, but divided in feet, 10ths and half-tenths. Each....	10.60
No. B-03332—CHICAGO ROD, same as No. B-03330, but divided in feet, inches and $\frac{1}{8}$ inches. Each....	10.60
No. B-03333—CHICAGO ROD, same as No. B-03330, but in 4 sections of $4\frac{1}{2}$ feet each, total length $16\frac{1}{2}$ feet, divided in feet, 10ths and 100ths. Each...	15.00
No. B-03334—CHICAGO ROD, same as No. B-03333, but divided in feet, 10ths and half-tenths.....	15.00
No. B-03335—CHICAGO ROD, same as No. B-03333, but divided in feet, inches and $\frac{1}{8}$ inches. Each.....	15.00
No. B-03336—TARGET for Improved Chicago Leveling Rod, $5\frac{1}{2}$ inches in diameter, vernier and nickel-plated trimmings. Round or oval. Each.....	3.00

The Stadia Targets are made as large as can be conveniently carried so as to be able to take long sights. They are furnished in pairs, with screw clamps to firmly set them at any fixed point. They can be easily slid up and down the rod and can be readily slipped off.

No. B-03337—CHICAGO STADIA TARGETS, large, rectangular.....	Per pair \$8.00
No. B-03338—CHICAGO STADIA TARGETS, large, round..	8.00
No. B-03339—CHICAGO STADIA TARGETS, large, diamond	8.00



## Chicago Leveling Rod Ribbons



No.	No.	No.	No.
B-03420	B-03422	B-03424	B-03426

- No. B-03420—1½ inches wide, divided in feet, tenths and hundredths.  
 No. B-03422—1½ inches wide, divided in feet, tenths and half-tenths.  
 No. B-03424—1½ inches wide, divided in feet, inches and eighth-inches.  
 No. B-03426—1¼ inches wide, divided in feet, tenths and hundredths,  
 with numbers running from top down.  
 No. B-03428—1¼ inches wide, divided in feet, tenths and hundredths.  
 No. B-03430—1½ inches wide, divided in feet, meters, decimeters and  
 centimeters.

	Each
12½ feet or under.....	\$1.25
13 feet to 16½ feet.....	1.60
17 feet to 20½ feet.....	1.85



## Separate Targets for Leveling Rods

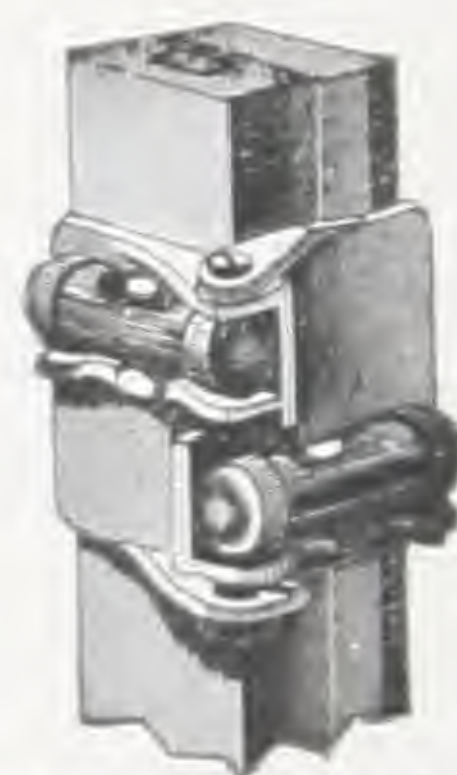
	EACH
No. B-03450—ROUND TARGET, for Rod No. B-03300.....	\$5.00
No. B-03451—ROUND TARGET, for Rod No. B-03302.....	5.00
No. B-03452—ROUND TARGET, for Rod No. B-03304.....	5.00
No. B-03453—ROUND TARGET, for Rod No. B-03306.....	5.00
No. B-03455—OVAL TARGET, for Rod No. B-03300.....	5.50
No. B-03456—OVAL TARGET, for Rod No. B-03302.....	5.50
No. B-03457—OVAL TARGET, for Rod No. B-03304.....	5.50
No. B-03458—OVAL TARGET, for Rod No. B-03306.....	5.50



No. B-03460



No. B-03465

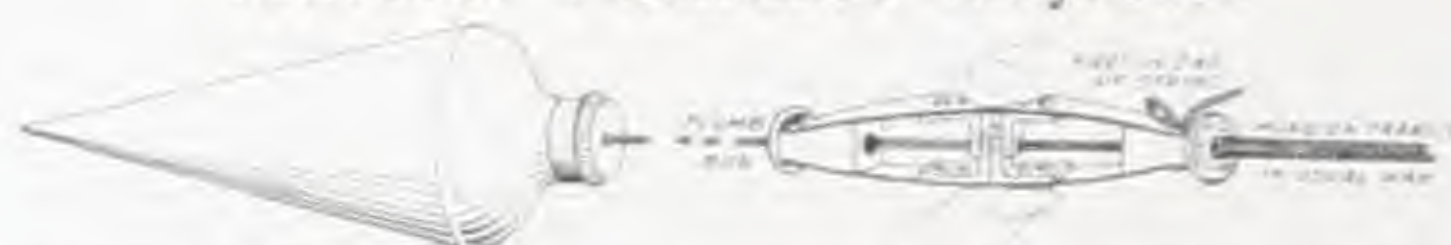


No. B-03460—ROD LEVEL, round level vial, 1 inch. Each...\$8.00

This Rod Level is used to determine that the rod is held perpendicular. By the long rectangular plate, proper contact is secured when holding it to the rod, but it may be attached to the rod by means of a flat-head screw, for which there is a keyhole slot in the plate.

No. B-03465—ROD LEVEL, for plumbing rod. Each.....\$3.00

## Autoset Plummet Adjuster



When attached to the transit plumb bob string, the plumb bob can be quickly shifted up or down with one hand.

A slight pressure of the thumb and finger on the side springs releases the string. It grips instantly on releasing the pressure.

All parts in contact with the string are rounded to prevent wear.

No. B-03468—AUTOSSET PLUMMET ADJUSTER. Each...\$0.75



### Tripods



- |  |              |
|--|--------------|
| No. B-03470—SOLID LEG TRIPOD, hardwood, for Levels and Transits.     | EACH \$10.00 |
| No. B-03472—SOLID LEG TRIPOD, hardwood, light for Architects' Levels | 6.00         |
| No. B-03474—SPIT LEG TRIPOD, hardwood, for Levels and Transits...    | 12.00        |
| No. B-03476—EXTENSION TRIPOD, hardwood, for Levels and Transits      | 15.00        |

### Brunton Pocket Transit



A complete, accurate and reliable pocket instrument for the taking of topography and preliminary surveys of every description, either on the surface or under ground; thus taking the place of a sighting compass, clinometer, prismatic compass and Abney level, and combining them as it does in one light and handy instrument.

The case is made of aluminum,  $2\frac{3}{4} \times 2\frac{3}{4} \times 1$  inch. Weight of instrument about 8 ounces.

- |   |              |
|---|--------------|
| No. B-03490—BRUNTON POCKET TRANSIT, with directions | EACH \$25.00 |
|---|--------------|



# Magnetic Pocket Compasses



No. B-03501



No. B-03503

No. B-03501—POCKET COMPASS, 1½-inch diameter, white metal case, jeweled needle, untarnishable metal dial, screw stop. Each.....\$1.25

No. B-03503—POCKET COMPASS, 1½-inch diameter, white metal case, jeweled solid bar needle, white enameled dial, screw stop. Each..... 1.85



No. B-03511



No. B-03513

No. B-03511—POCKET COMPASS, same as No. B-03501, but with hinged cover which automatically lifts needle from point when closed. Each.....\$2.50

No. B-03513—POCKET COMPASS, same as No. B-03503, but with hinged cover which automatically lifts needle from point when closed. Each..... 3.15



## Magnetic Pocket Compasses—Continued



No. B-03516



No. B-03517

No. B-03516—POCKET COMPASS, 1½ inch, with floating aluminum dial, jeweled center and stop to lock dial when not in use. Each.....\$1.90

No. B-03517—POCKET COMPASS, 1½ inch, same as No. B-03516, but with hinged case with stop which automatically locks dial when not in use. Each. . 3.15

### Magnetic Pocket Compasses in Mahogany Boxes

No. B-03520—MAGNETIC COMPASS, card dial, 2 inch needle, with stop, full circle division. Each.....\$1.25

No. B-03522—MAGNETIC COMPASS, metal dial, 2 inch needle, with stop, jeweled. Each..... 1.40

No. B-03524—MAGNETIC COMPASS, metal dial, 2 inch needle, with stop, jeweled, full circle division. Each..... 1.50

No. B-03526—MAGNETIC COMPASS, metal dial, 2 inch bar needle, with stop, jeweled, full circle division. Each 2.40

### Military Compass

No. B-03530—MILITARY COMPASS, 2 inch needle, with agate center and automatic stop, divided to degrees on raised metal ring. In polished mahogany box, 3x3 inches. Each.....\$3.50



# Surveying Compasses—Continued



No. B-03582

Especially adaptable for reconnaissance and preliminary surveying. It is made in a thoroughly substantial manner, enabling it to withstand the rough usage commonly occurring in this class of work. The exact magnetic variation can be obtained by revolving the inner circle (showing thirty degrees from zero, either East or West) by means of its milled edge. A vernier is also attached for closer reading. The No. B-03582 compass (specially recommended) is fitted with a 4½ inch best bar needle, jewelled center and stop, a ball and socket mounting (Jacob-staff) complete in a specially braced block sling leather case. Weight of 5 inch instrument, including case, 36 ounces.

	EACH
No. B-03580—SURVEYING COMPASS, 3½ inch, with ball and socket Jacob-staff fitting, in special leather sling case .....	\$31.00
No. B-03582—SURVEYING COMPASS, 5 inch, with ball and socket Jacob-staff fitting, in special leather sling case .....	34.00



## Hand Levels



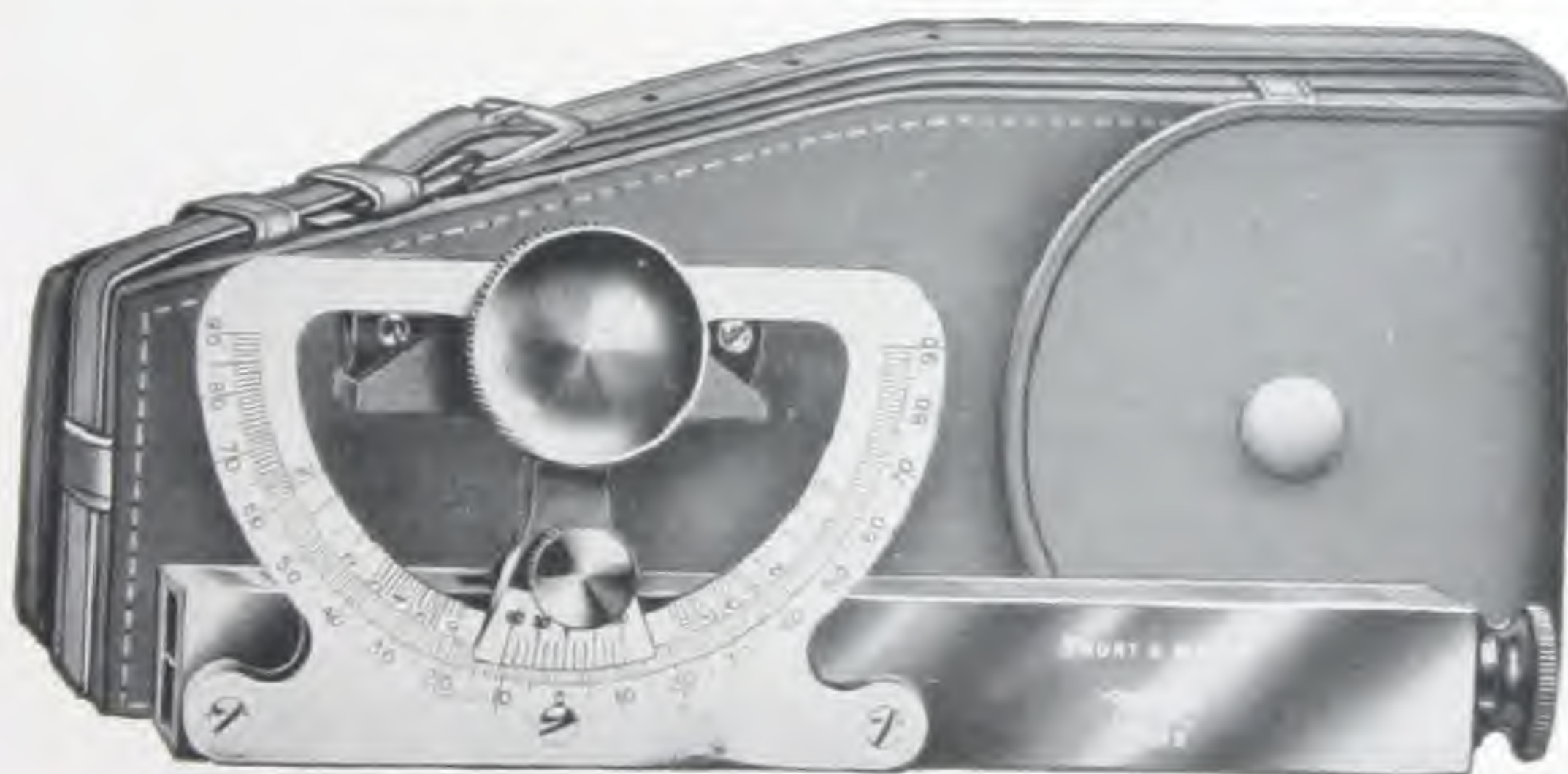
No. B-03590

No. B-03590—POCKET REFLECTING LEVEL, in square bronze metal case, 5 inches long, in leather case, complete .....\$4.00



No. B-03592

No. B-03592—POCKET REFLECTING LEVEL, in bronze metal case, 5 inches long, in leather case, complete. \$5.00



No. B-03594

With German silver arc divided each way to ninety degrees, with vernier reading to 10 minutes and positive clamping device.

Reflector of silver, and all eye tubes are made to draw out. Each instrument is packed in a leather sling case.

No. B-03594—ABNEY'S LEVEL, 5 inches long, large German silver arc with draw telescope and improved fixing clamp to vernier, complete in leather sling case. Each .....\$15.00



# Pocket Magnifying Glasses



No. B-03654

Mounted in rubber.

	Each
No. B-03650—MAGNIFYING GLASS, 1 lens, 1-in. diameter . . .	\$0.35
No. B-03652—MAGNIFYING GLASS, 1 lens, 1½-in. diameter . . .	.55
No. B-03654—MAGNIFYING GLASS, 2 lenses, 1-in. diameter . . .	.60
No. B-03656—MAGNIFYING GLASS, 2 lenses, 1½-in. diameter . . .	1.00



No. B-03664

Mounted in metal.

	Each
No. B-03660—MAGNIFYING GLASS, nickel plated, 1 lens, 1-in. diameter . . . . .	\$0.75
No. B-03662—MAGNIFYING GLASS, nickel plated, 2 lenses, 1-in. diameter . . . . .	1.00
No. B-03664—MAGNIFYING GLASS, nickel plated, 3 lenses, 1-in. diameter . . . . .	1.30



## Magnifying Glasses—Continued



No. B-03670



No. B-03678

No. B-03670—CODDINGTON LENS, metal folding frame, nickel plated, $\frac{1}{2}$ -in. diameter.....	EACH \$1.50
No. B-03672—CODDINGTON LENS, metal folding frame, nickel plated, 1-in. diameter.....	2.10
No. B-03674—CODDINGTON LENS, metal folding frame, nickel plated, $1\frac{3}{8}$ -in. diameter.....	3.60
No. B-03676—THREAD COUNTER, brass frame, $\frac{1}{2}$ -in. field.	.30
No. B-03678—MAGNIFIER, on 3 legs, brass, screw adjustment, 1-in. diameter .....	.55

## Reading Glasses

Best Quality



No. B-03680

No. B-03680—READING GLASS, nickeled frame.

Size, inches ...	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5
Each .....	\$0.50	.70	1.00	1.15	1.60	2.00	2.75	3.40



# Engineers' and Surveyors' Transit

(C. L. Berger & Sons.)



No. B-05006

For description, see page 241.



## Engineers' and Surveyors' Transits—Continued

(C. L. Berger & Sons)

**HORIZONTAL CIRCLE**—6¼-inch at edge of graduation, double opposite verniers reading to minutes, two rows of figures in opposite directions from 0° to 360°. Verniers at 30° to line of sight.

**TELESCOPE**—11½-inch, objects erect, aperture 1¼-inch, power 24 diameters (well adapted for stadia work), eye piece provided with improved screw arrangement for accurately focusing the cross wires, telescope perfectly balanced, line of collimation correct for all distances. Fixed Stadia wires.

**SPIRIT LEVELS**—Standard length, extra sensitive.

**MAGNETIC NEEDLE**—4¼-inch.

**CENTERS**—Shifting.

**STANDARD**—Leatherized. Graduations on solid silver or silvered. Full length split tripod. In mahogany case, fully equipped. Weight of Transit, 13½ lbs. Weight of Tripod, 9 lbs.

No. B-05000—PLAIN TRANSIT—Graduations on solid silver.	
Each .....	\$190.00
No. B-05001—PLAIN TRANSIT as above, but with graduations silvered. Each.....	180.00
No. B-05002—TRANSIT as above, but with long sensitive level, clamp and tangent screw to telescope. Graduations on solid silver. Each.....	223.00
No. B-05003—TRANSIT, same as No. B-05002, but with graduations silvered. Each.....	210.00
No. B-05004—TRANSIT, as described, but with level, clamp, tangent screw and 5-inch Vertical Arc to telescope. Double verniers reading to minutes. Graduations on solid silver. Each.....	243.00
No. B-05005—TRANSIT, same as No. B-05004, but with graduations silvered. Each.....	225.00
No. B-05006—TRANSIT, as described, but with level, clamp, tangent screw and 5-inch full Vertical Circle. Circle has double verniers reading to minutes, protected by an aluminum guard. Graduations on solid silver. Each.....	255.00
No. B-05007—TRANSIT, same as No. B-05006, but with graduations silvered. Each.....	237.00



## Engineers' and Surveyors' Transits—Continued

(C. L. Berger & Sons.)



No. B-05030

For description, see page 243.



## Engineers' and Surveyors' Transits—Continued

(C. L. Berger & Sons.)

### 5 1/8-inch Engineers' and Surveyors' Transit

The essential features of this transit are like those enumerated under No. B-05004, page 241, with the exception of size and weight.

**HORIZONTAL CIRCLE**—5 1/8-inch (at edge of graduation), double opposite verniers reading to minutes, two rows of figures 0 to 360 in opposite directions; figures inclined in the direction verniers should be read; verniers at 30° to line of sight.

**VERTICAL ARC**—5-inch, graduated on solid silver, double verniers read to minutes.

**TELESCOPE**—10 1/4-inch, objects erect, aperture 1 1/4-inch, power 18 diameters.

**STADIA WIRES**—Fixed (in ratio 1:100).

**TELESCOPE LEVEL**—5 1/2-inch, with clamp and tangent screw to telescope.

**PLATE LEVELS** of standard length and very sensitive.

**MAGNETIC NEEDLE**—3 3/4-inch (edge-bar form having no index error).

**CENTER**—Shifting.

**STANDARD**—Leatherized. Full length split-leg tripod. All graduations on solid silver.

No. B-05030—TRANSIT. Each.....	\$243.00
No. B-05032—TRANSIT, as above, but with graduations silvered. Each.....	228.00
No. B-05034—TRANSIT, same as No. B-05030, but without vertical arc. Each.....	223.00
No. B-05036—TRANSIT, same as No. B-05030, but without level, clamp tangent screw, arc or stadia wires. Each .....	190.00

### Extras to Transit No. B-05030

5-inch full vertical circle, double vernier reading to minutes, aluminum guard .....	9.00
Gradiometer attachment .....	5.00
Offsetting arrangement .....	5.00
Variation plate .....	10.00



Engineers' and Surveyors' Transits—Continued

(Buff & Buff Mfg. Co.)



No. B-05041

For description, see page 246.





## Engineers' and Surveyors' Transits—Continued

(Buff &amp; Buff Mfg. Co.)



Types..... "A"



"B"

## GENERAL SPECIFICATIONS.

	Size No. 1	Size No. 2	Size No. 3
Weight .....	13½ lbs.	10 lbs.	7 lbs.
Dia. of Graduation.....	6¼ inches	5½ inches	4½ inches
Length of Needle.....	4½ inches	3¾ inches	3¼ inches
Power Erect. Telescope.....	26.5 diameters	22.5 diameters	18 diameters
Power Invert. Telescope.....	29 diameters	25 diameters	21 diameters
Length of Telescope.....	12 inches	10¾ inches	8 inches
Length Level Bubble.....	6 inches	5½ inches	4 inches
Dia. Telescope Aperture.....	1¼ inches	1½ inches	1½ inches

**HORIZONTAL CIRCLE**—With two opposite double reading verniers to minutes, placed at either 30° or 90° to line of sight. Two rows of opposite inclined figures 0°-360°. Graduations silvered and covered by pure crystal plate glass.

**TELESCOPE**—Erecting or inverting, is balanced and reverses at either end; improved eye-piece, unsurpassed large clear field. Center point is provided on top of telescope to permit of accurate centering from above. Adjustment for vertical plane, and line of collimation correct for all distances.

Fixed stadia wires.

**LEVEL BUBBLE**—With clamp and tangent to telescope. Improved lower and upper spring tangent clamps.

**CENTER**—Shifting, with ¼-inch adjustment. Long taper centers with broad flanges and of hardest bell metal and phosphor bronze.

**SPIRIT LEVELS**—Truly ground by special machine, rated and sensitive.

**STANDARD**—Cloth finished.

**COMPASS NEEDLE** of accepted form.

Compass graduation is silvered and figured with a single row 0-90 on each side of N. and S.

Tripod improved; split leg with wing-nuts.

The mahogany instrument box is provided with strap, brass lock and hooks, and contains plumb-bob, pocket magnifier, sunshade, wrench, screwdriver, adjusting pins, etc.



## Engineers' and Surveyors' Transits—Continued

(Buff & Buff Mfg. Co.)

### SIZE No. 1, 6¼ INCH

	EACH
No. B-05039—TRANSIT, Style "A" .....	\$216.00
No. B-05040—TRANSIT, Style "B," with 5-inch Vertical Arc.	231.00
No. B-05041—TRANSIT, Style "C," with 5-inch full circle, protected by aluminum guard.....	240.00

### SIZE No. 2, 5½ INCH

	EACH
No. B-05043—TRANSIT, Style "A" .....	\$216.00
No. B-05044—TRANSIT, Style "B," with 5-inch Vertical Arc.	231.00
No. B-05045—TRANSIT, Style "C," with 5-inch full Vertical Circle, protected by aluminum guard.....	240.00

### SIZE No. 3, 4½ INCH

	EACH
No. B-05047—TRANSIT, Style "A" .....	\$206.00
No. B-05048—TRANSIT, Style "B," with 4-inch Vertical Arc.	221.00
No. B-05049—TRANSIT, Style "C," with 4-inch full Vertical Circle, protected by aluminum guard.....	230.00

If Stadia wires not desired, deduct \$3.00.



## Extras to Buff & Buff Transits

EACH

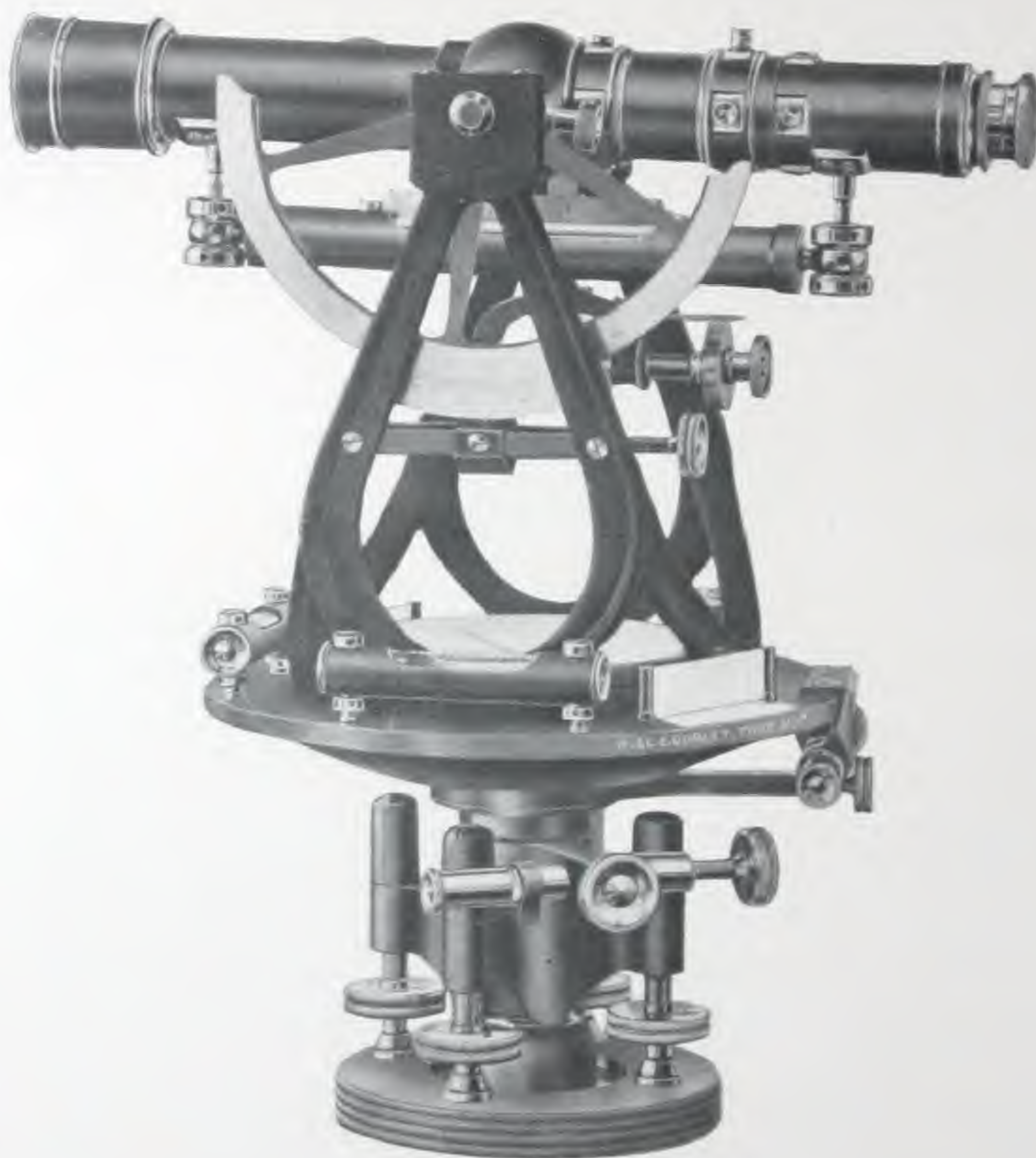
Graduation, Horizontal Circle, solid silver.....	\$10.00
Graduation, Horizontal Circle, reading to 30 inches.....	10.00
Graduation, Horizontal Circle, reading to 20 inches.....	20.00
Graduation, Horizontal Circle, reading to 10 feet.....	10.00
Graduation, Vertical Circle, on solid silver.....	5.00
Reading Glasses to Horizontal Verniers.....	12.00
Gradiometer Attachment.....	5.00
Reversion Level, for leveling with Telescope reversed.....	12.50
Stadia Wires, fixed.....	3.00
Variation Plate and Ring.....	10.00
Short Focus Lens Attachment, 2 sets in combination.....	16.00
Dust Caps to Leveling Screws.....	3.00
Silk waterproof bag to protect Instrument from rain and dust..	1.00
Superfine Watch Oil, to lubricate centers.....	.25
Extra Extension-Leg Tripod.....	16.00
Extra Regular-Leg Tripod.....	16.00
Reflector Shade for Cross Wires.....	4.00
Saegmuller Solar Attachment.....	50.00
Prism, attached to Eye-piece.....	8.00
Prism combination pivoted, with Colored Glasses.....	12.00
Edge graduation for Vertical Circle, 5 inches diameter.....	10.00
Trivet, for setting Instrument on Beams, etc., in Longitudinal passages, 2-inch, 3-inch and 6-inch Legs.....	3.50
Detachable side Telescope with Counterpoise.....	35.00
Right angle Sight provided through Axle—for offsetting.....	5.00
Leather Cover.....	14.50
Leather Cover, with Straps.....	16.50
Plummet-lamp, improved form (see A 100).....	9.00
Bracket—for use in mines—instead of Tripod—heavy casting complete and ready for Instrument to be attached.....	3.50
Auxiliary Bubble to Vertical Circle.....	10.00

For other Extras not listed, send description and sketch.



## Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley's Precise Transit.)



No. B-05076

For description, see page 249.



## Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley's Precise Transit.)

### GENERAL SPECIFICATIONS

	No. B-05075	No. B-05076	No. B-05077
Diameter of Horizontal Limb.....	6.7 inches	6.25 inches	5.65 inches
Length of Needle.....	3.5 inches	3.5 inches	3 inches
Length of Telescope.....	11 inches	11 inches	8 inches
Power of Telescope.....	26 diameters	26 diameters	20 diameters
Length of Telescope Level.....	7.2 inches	7.2 inches	5 inches
Diameter of Vertical Limb.....	6 inch arc	6 inch arc	4.5 inch circle
Vertical Limb reads to.....	1 minute	1 minute	1 minute
Tripod, with Cap.....	Split legs	Split legs	Extension legs
Weight of Instrument.....	18.5 lbs.	16.5 lbs.	11 lbs.
Weight of Tripod.....	11 lbs.	11 lbs.	10 lbs.

**CENTERS**—Compound spindle and socket of special length, diameter and taper.

**LEVELING HEAD**—Webbed construction, combining minimum weight with maximum rigidity. Four sturdy leveling screws with dust caps. Clamp and tangent with opposing spring. Shifting center.

**HORIZONTAL LIMB**—Strongly ribbed, increasing in depth toward the center. Graduations on sterling silver to half degrees, reading by two opposite double verniers to one minute, with large clear figures in two rows 0 to 360, reading in opposite directions and inclined in direction of increase. Verniers at 30 degrees to line of sight, and with reflectors. Flush vernier glasses, waterproof. Two sensitive ground and graduated plate levels, one parallel to line of sight being extra long. Clamp and tangent with opposing spring.

**COMPASS**—With heavy beveled plate glass cover, waterproof. Vertical bar needle. Variation arc with rack and pinion.

**STANDARD**—Cast in one piece with extra wide base insuring utmost possible rigidity and adding full strength of ribbed plate to trussed structure. Multi-grooved axis bearings eliminating any chance of end play.

**TELESCOPE**—Seamless tubing, balanced, reverses both ends. Achromatic lenses, combining satisfactorily flat field, illumination, definition and power. Erecting eye-piece. Rack and pinion to eye-piece and object slides. Platinum cross and stadia wires. Fixed stadia, ratio 1:100. Dust guard to object slide. Dust cap and sunshade. Clamp and tangent with opposing spring. Center point on top.

**TELESCOPE LEVEL**—Extra long sensitive ground vial, with graduations on silvered metal scale. Vial centered directly under telescope axis, making both ends of bubble equally visible.

**GRADIENTER**—Regular with Nos. B-05075 and B-05076. If desired on No. B-05077 add \$12.00 to price.

**VERTICAL LIMB**—Graduations on sterling silver. Vernier to arc adjustable by tangent screw.

**FINISH**—Bronze, screws and small parts bright. Durable leather finish on standard.

**EQUIPMENT**—Mahogany carrying case, with usual accessories.

No. B-05075—ENGINEERS' AND SURVEYORS' TRANSIT. Each. \$220.00

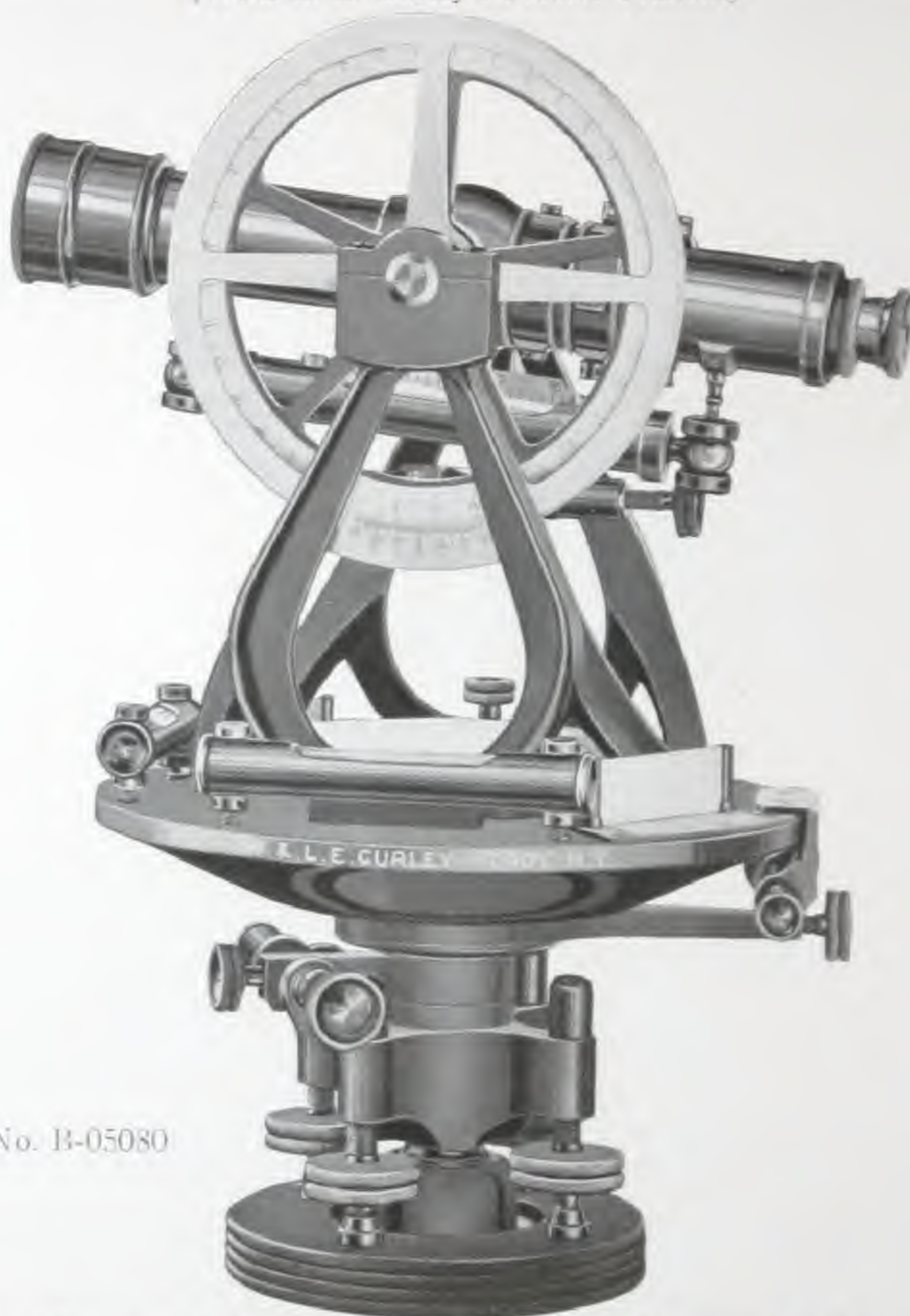
No. B-05076—ENGINEERS' AND SURVEYORS' TRANSIT. Each. 220.00

No. B-05077—ENGINEERS' AND SURVEYORS' TRANSIT. Each. 200.00



# Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley's Precise Transit.)



No. B-05080

In all essential details the construction of this transit is the same as the Engineers' size, as shown and described on page 249.

No. B-05080—LIGHT MOUNTAIN TRANSIT, with 5.65-inch limb, 8-inch telescope, weight 11 lbs. Each. \$206.00

No. B-05081—LIGHT MOUNTAIN TRANSIT, same as No. B-05080, but with vertical arc of 2.5-inch radius, with adjustable vernier. Each. 206.00



## Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley.)



No. B-05082

For description, see page 252.



## Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley.)

### SPECIFICATIONS

**CENTERS**—Compound spindle and socket of special length, diameter and taper.

**LEVELING HEAD**—Webbed construction. Four sturdy leveling screws with dust caps. Clamp and tangent.

**HORIZONTAL LIMB**—Strongly ribbed, increasing in depth toward the center. Graduations on sterling silver to half degrees, reading by two opposite double verniers to one minute. Verniers at 30 degrees to line of sight, and with reflectors.

**PLATE**—Strongly ribbed, increasing in depth toward the center. Needle circle graduated to half degrees and figured in quadrants, with heavy beveled plate glass cover, waterproof. Horizontal bar needle. Variation arc with rack and pinion. Flush vernier glasses, waterproof. Two sensitive ground and graduated plate levels. Clamp and tangent.

**STANDARDS**—New design, angle section, having larger feet than former patterns, and providing stronger support for the telescope. Multi-grooved axis bearings eliminating any chance of end play.

**TELESCOPE**—11 inches long, power 26 diameters, erecting. Balanced: reverses both ends; achromatic lenses. Rack and pinion movement to eyepiece and object slides. Platinum cross wires and stadia wires. Fixed stadia, ratio 1:100. Dust guard to object slide, detachable sunshade and cap. Clamp and tangent to telescope axis.

**TELESCOPE LEVEL**—7.2 inches long, sensitive ground vial, with graduations on silvered metal scale. Vial centered directly under telescope axis.

**FINISH**—Bronze, screws and small parts bright. Leather finish on standards.

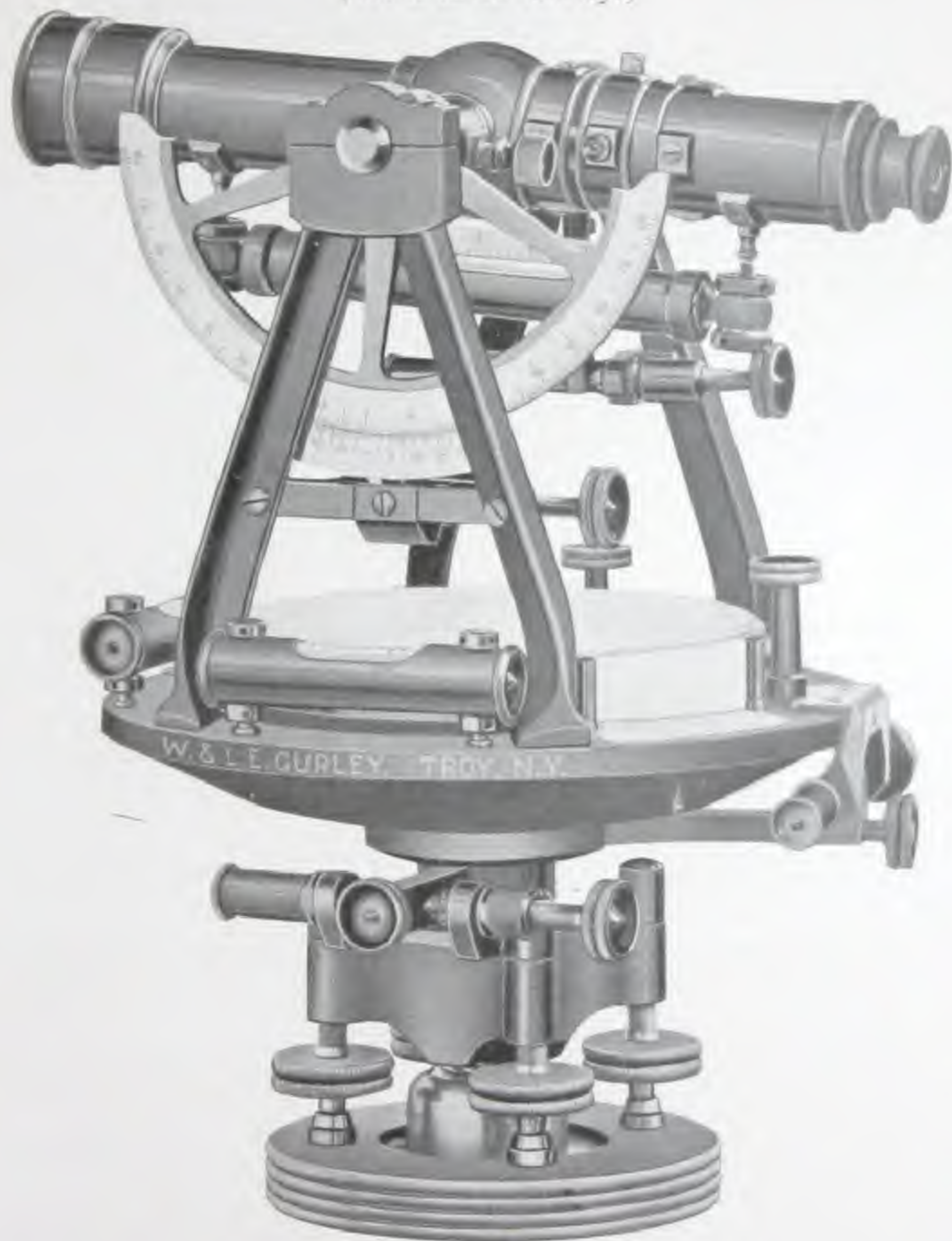
**EQUIPMENT**—Mahogany box, completely equipped.

No. B-05082—ENGINEERS' TRANSIT, 6.7-inch limb, with level on telescope and clamp and tangent to telescope axis. Each	\$170.00
No. B-05083—ENGINEERS' TRANSIT, 6.7-inch limb, with 4½-inch vertical circle, level on telescope and clamp and tangent to telescope axis. Each	182.00
No. B-05084—ENGINEERS' TRANSIT, 6.7-inch limb, with 3-inch vertical arc and vernier moved by tangent screw, level on telescope and clamp and tangent to telescope axis. Each	188.00
No. B-05085—ENGINEERS' TRANSIT, 6.7-inch limb, with 3-inch vertical arc and vernier moved by tangent screw, level on telescope and gradienter combined with clamp and tangent to telescope axis. Each	200.00
Weight of instrument, 16 to 17 lbs.	
No. B-05086—ENGINEERS' TRANSIT, 6.25-inch limb, with level on telescope and clamp and tangent to telescope axis. Each	170.00
No. B-05087—ENGINEERS' TRANSIT, 6.25-inch limb, with 4½-inch vertical circle, level on telescope and clamp and tangent to telescope axis. Each	182.00
No. B-05088—ENGINEERS' TRANSIT, 6.25-inch limb, with 3-inch vertical arc and vernier moved by tangent screw, level on telescope and clamp and tangent to telescope axis. Each	188.00
No. B-05089—ENGINEERS' TRANSIT, 6.25-inch limb, with 3-inch vertical arc and vernier moved by tangent screw, level on telescope and gradienter combined with clamp and tangent to telescope axis. Each	200.00
Weight of instrument, 14 to 15 lbs.	



## Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley.)



No. B-05090

For description, see page 254.



## Engineers' and Surveyors' Transits—Continued

(W. & L. E. Gurley.)

### SPECIFICATIONS

**CENTERS**—Compound; long spindle and socket, leveling head of ribbed construction, four leveling screws with dust caps, clamp and tangent to spindle, shifting center.

**HORIZONTAL LIMB**—5.65 inches diameter, graduations on sterling silver to half degrees, figured 0 to 90 each way inner row, and 0 to 360 outer row, reading by two opposite double verniers to one minute; verniers placed at an angle of 30 degrees to line of sight and covered with selected plate glass, waterproof. Clamp and tangent movement.

**PLATE**—With needle 4 inches long, circle graduated on upper face to half degrees and figured 0 to 90 each way; also graduated on inner edge to whole degrees. Variation arc for setting off magnetic declination, graduated to half degrees and reading by vernier to single minutes; with rack and pinion movement. Graduations are clear and distinct on a silvered surface. Two levels with ground and graduated vials.

**TELESCOPE**—8 inches long, aperture 1 inch, power 20 diameters, erecting. Rack and pinion movements to both eyepiece and object slides. Dust guard to object slide. PLATINUM cross wires and stadia wires. Detachable sunshade and dust cap for object glass.

**STANDARDS**—New design, angle section, having larger feet than former patterns, providing stronger support for the telescope.

**VERTICAL ARC**—2½ inches radius, graduated on sterling silver, reading by one double vernier to single minutes. Vernier movable by tangent screw.

**LEVEL ON TELESCOPE**—With sensitive ground vial and graduations on metal scale.

**CLAMP AND TANGENT**—To telescope axis.

**FINISH**—Bronze, except screws and small parts, which are bright. Durable leather finish on standards.

**EQUIPMENT**—Transit is securely packed in a light mahogany box, completely equipped.

**TRIPOD**—Extension legs, closing to 36 inches; wooden cap and carrying strap.

**WEIGHT**—Of Transit only, about 11 lbs.; Transit, including box, and accessories, about 20 lbs.; Extension Tripod, about 10 lbs.

No. B-05090—LIGHT MOUNTAIN TRANSIT. Each . . . \$186.00





## Builders' Transits

Designed for light and moderately accurate work, and especially recommended to the Building Contractor for taking angles, leveling foundations, examining walls in course of construction, giving lines and levels for buildings, etc.

No. B-05097

**TELESCOPE**— $9\frac{3}{4}$  inches long, magnifying power 22 diameters, with dust cap and sunshade. Aperture of object lens  $1\frac{1}{8}$  inches with improved rack and pinion movement. Micrometer motion to eye-piece for precise focusing of cross-hairs, long ground level to telescope, graduated on the glass. Telescope reversible from both ends.

**HORIZONTAL LIMB**— $5\frac{3}{16}$  inches in diameter, divided to  $\frac{1}{2}$  degrees, with vernier reading to single minutes. Clamp and tangent screw to plate and telescope. Four leveling screws and shifting center. Instrument stands erect in mahogany case, fully equipped. White ash split leg tripod with boot spurs.

- No. B-05095—BUILDERS' TRANSIT, as described above.  
Each ..... \$ 85.00
- No. B-05096—BUILDERS' TRANSIT, same as No. B-05095, but with  $4\frac{1}{8}$  inch vertical circle divided to  $\frac{1}{2}$  degrees, vernier reading to minutes. Each.... 95.00
- No. B-05097—BUILDERS' TRANSIT, same as No. B-05095, but with  $3\frac{3}{4}$  inch needle compass divided to  $\frac{1}{2}$  degrees. Each..... 105.00
- No. B-05098—BUILDERS' TRANSIT, same as No. B-05096, but with compass as on No. B-05097. Each.... 115.00



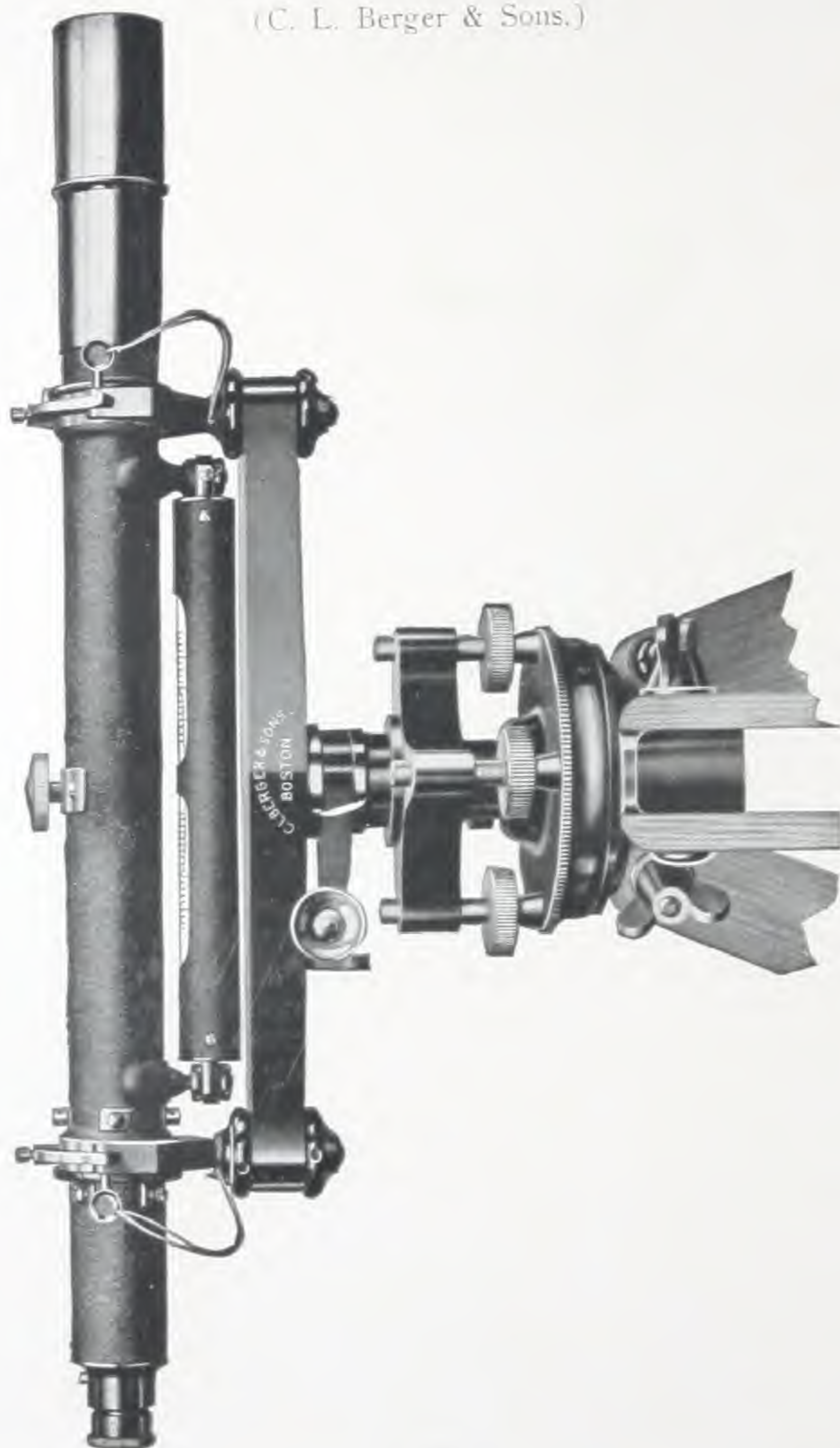


THE C. F. PEASE COMPANY



## Engineers' Wye Level

(C. L. Berger & Sons.)



No. B-05142

For description, see page 257.



## Engineers' Wye Level—Continued

(C. L. Berger & Sons.)

For illustration, see page 256.

### SPECIFICATIONS

**TELESCOPE**—18-inch, objects erect, aperture  $1\frac{3}{8}$ -inch, power 35 diameters; focusing slide very long and fully protected by dust guard. Collars of hard bell metal.

**EYE-PIECE**—With large flat field of view, provided with an improved screw arrangement permitting to focus the wires by simply turning its head slightly to right or left. Line of collimation correct for all distances. Telescope balanced each way from center when focused for a mean distance with sunshade attached, to secure highest accuracy attainable. Stop provided so that the cross wires will always be horizontal and vertical in instrument.

**SPIRIT-LEVEL**— $8\frac{5}{8}$ -inch (between centers of supporting arms) level vial, accurately ground to a true curvature and barrel shape.

**CENTER**—Of hard bell metal (very large in diameter and long, strong and unyielding).

Mahogany box, fully equipped.

Weight of instrument, 11 lbs. Weight of tripod, about 10 lbs.

No. B-05142—ENGINEERS' WYE LEVEL. Each.....\$140.00

No. B-05143—ENGINEERS' WYE LEVEL, same as No.  
B-05142, but with telescope  $20\frac{1}{2}$  inches long.  
Each ..... 145.00

## Engineers' Dumpy Level

(C. L. Berger & Sons.)

For illustration, see page 258.

### SPECIFICATIONS

**TELESCOPE**—Objects erect, aperture  $1\frac{3}{8}$ -inch, power 32 diameters. Focusing slide very long and provided with a dust guard when run out for sights as near as about 12 feet.

**EYE-PIECE** with large flat field of view, provided with an improved screw arrangement permitting to focus the wires by simply turning its head slightly to right or left.

**SPIRIT-LEVEL**— $7\frac{1}{2}$  inches long (between centers of suspending arms). Level vial is very sensitive and accurately ground to a true curvature and barrel shape.

**CENTER**—Of hard bell metal, is cast in one piece with the hollow cross bar.

**CLAMP AND TANGENT SCREW.**

Mahogany box, fully equipped.

Weight of instrument, 10 lbs. Weight of tripod, about 10 lbs.

No. B-05152—ENGINEERS' DUMPY LEVEL. Each.....\$115.00



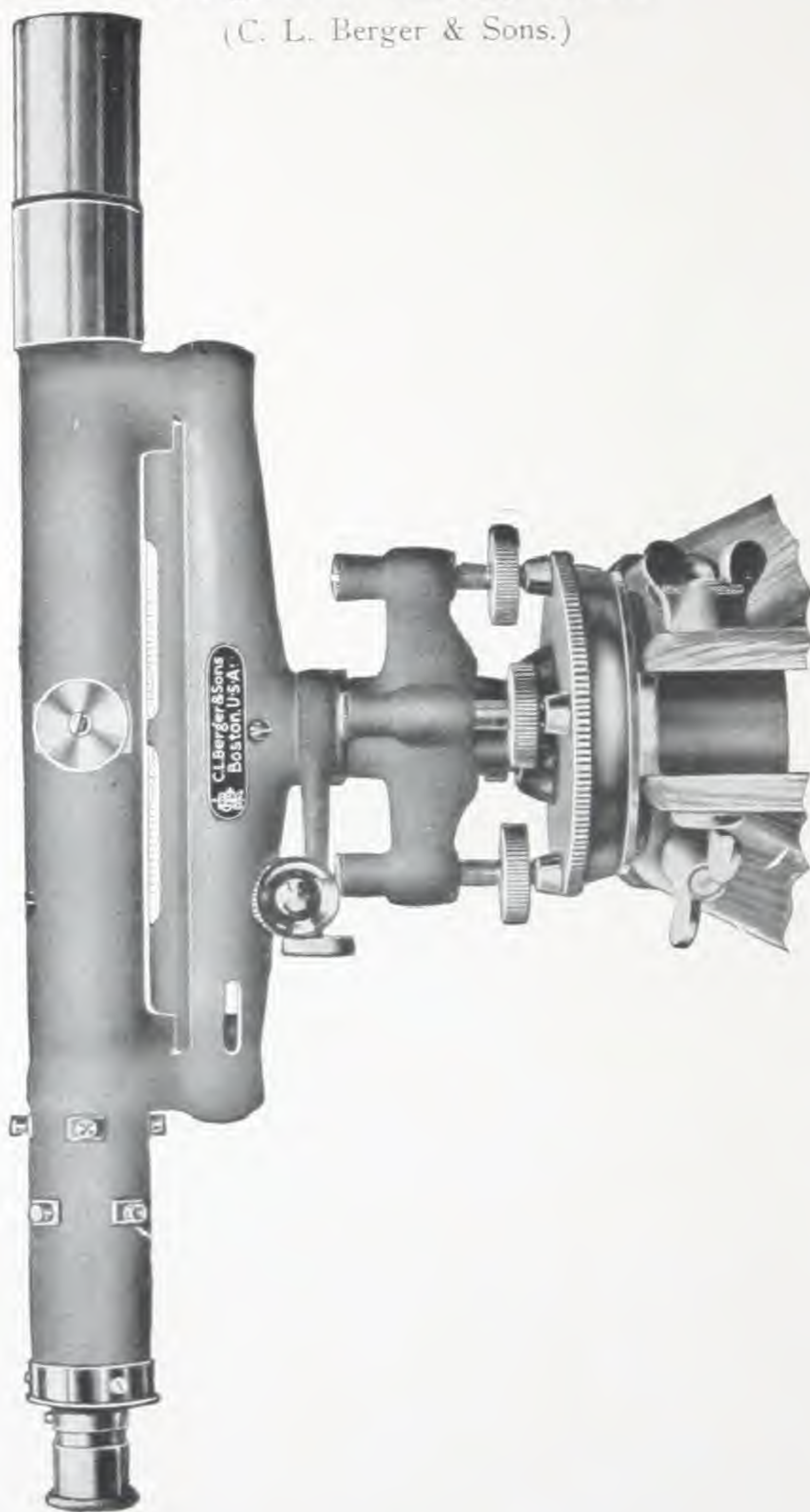


THE C. F. PEASE COMPANY



## Engineers' Dumpy Level

(C. L. Berger & Sons.)



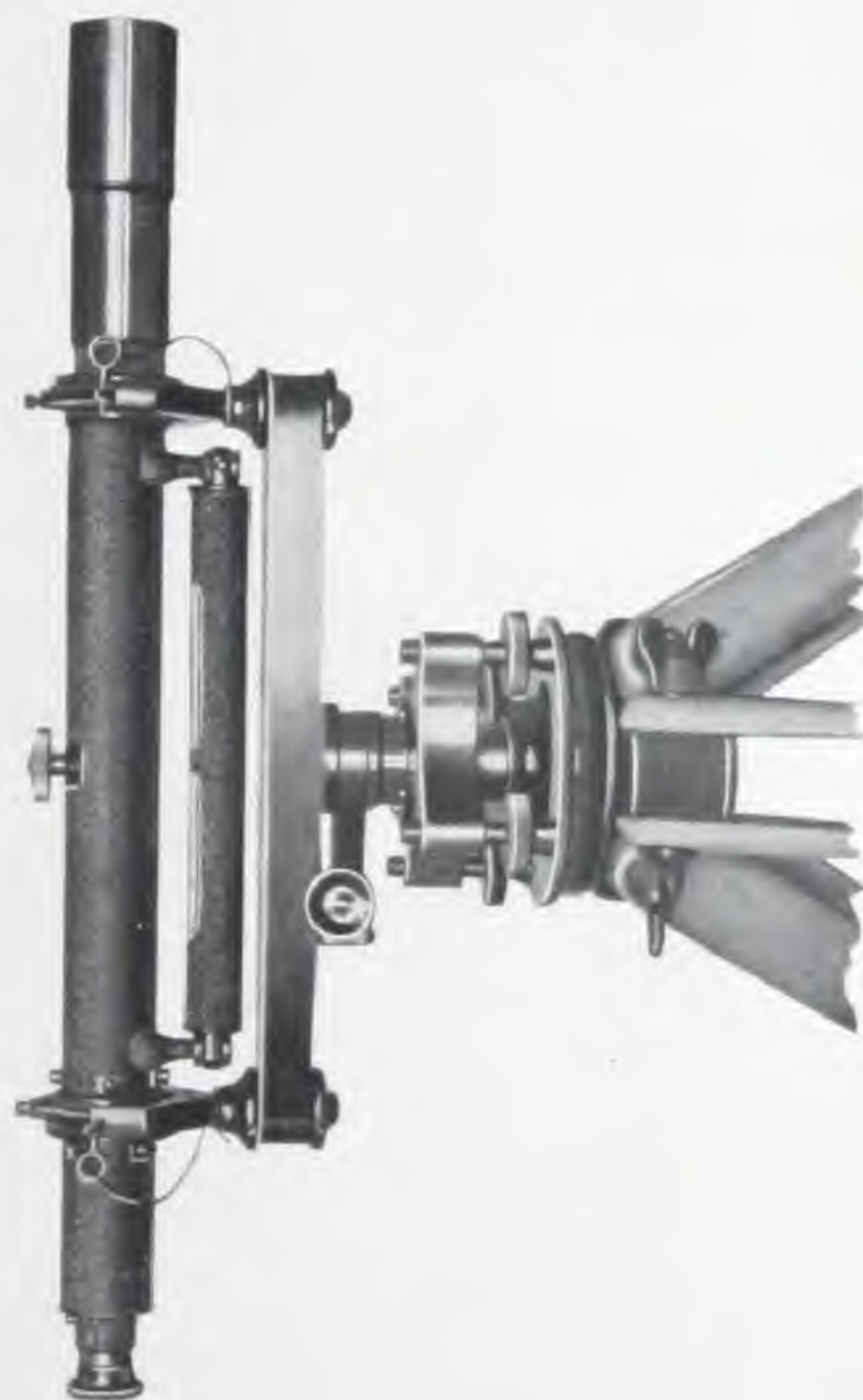
No. B-05152

For description, see page 257.



## Engineers' Wye Level

(Buff & Buff Mfg. Co.)



No. B-05154

For description, see page 260.



## Engineers' Wye and Dumpy Levels

(Buff & Buff Mfg. Co.)

### Engineers' Wye Level

#### Specifications

**TELESCOPE**—18 inches, with  $1\frac{3}{8}$ -inch objective, giving increased illumination and clearness. Power 36 diameters. Protection to object slide. Erecting or inverting eye-piece gives large, flat field of view. Entire telescope and level tube cloth finished. Phosphor-bronze contact points in wyes for the bell-metal collars. Regular bell-metal center in socket of phosphor-bronze. Line of collimation correct for all distances. Instrument finally adjusted to the finest possible accuracy with sunshade in position and focused on mean distance. In mahogany case with strap and hooks, fully equipped.

Unless otherwise ordered on this level, the sensitiveness of spirit level will be what is rated as 10 seconds to 1/10-inch travel on scale.

Weight of complete instrument,  $10\frac{3}{4}$  lbs. Tripod, 7 lbs.

For cut of instrument, see page 259.

No. B-05154—ENGINEERS' WYE LEVEL, with 18-inch telescope. Each.....	\$140.00
No. B-05155—ENGINEERS' WYE LEVEL, with 20-inch telescope. Each.....	145.00
No. B-05156—ENGINEERS' WYE LEVEL, with 22-inch telescope. Each.....	145.00

### Engineers' Dumpy Level

#### Specifications

**TELESCOPE**— $15\frac{1}{2}$  or 18-inch, power 32 diameters, erecting eye-piece. Entire telescope and level tube cloth finished.

Focusing screw placed on top. Protection to object slide. Improved form of telescope barrel casting of phosphor-bronze, insuring great stability.

Center and lower bar of a single bell-metal casting obtain utmost strength and permanency of adjustment. Clamp screw for center.

In mahogany case, fully equipped.

Weight of instrument,  $9\frac{1}{2}$  lbs. Tripod, 7 lbs.

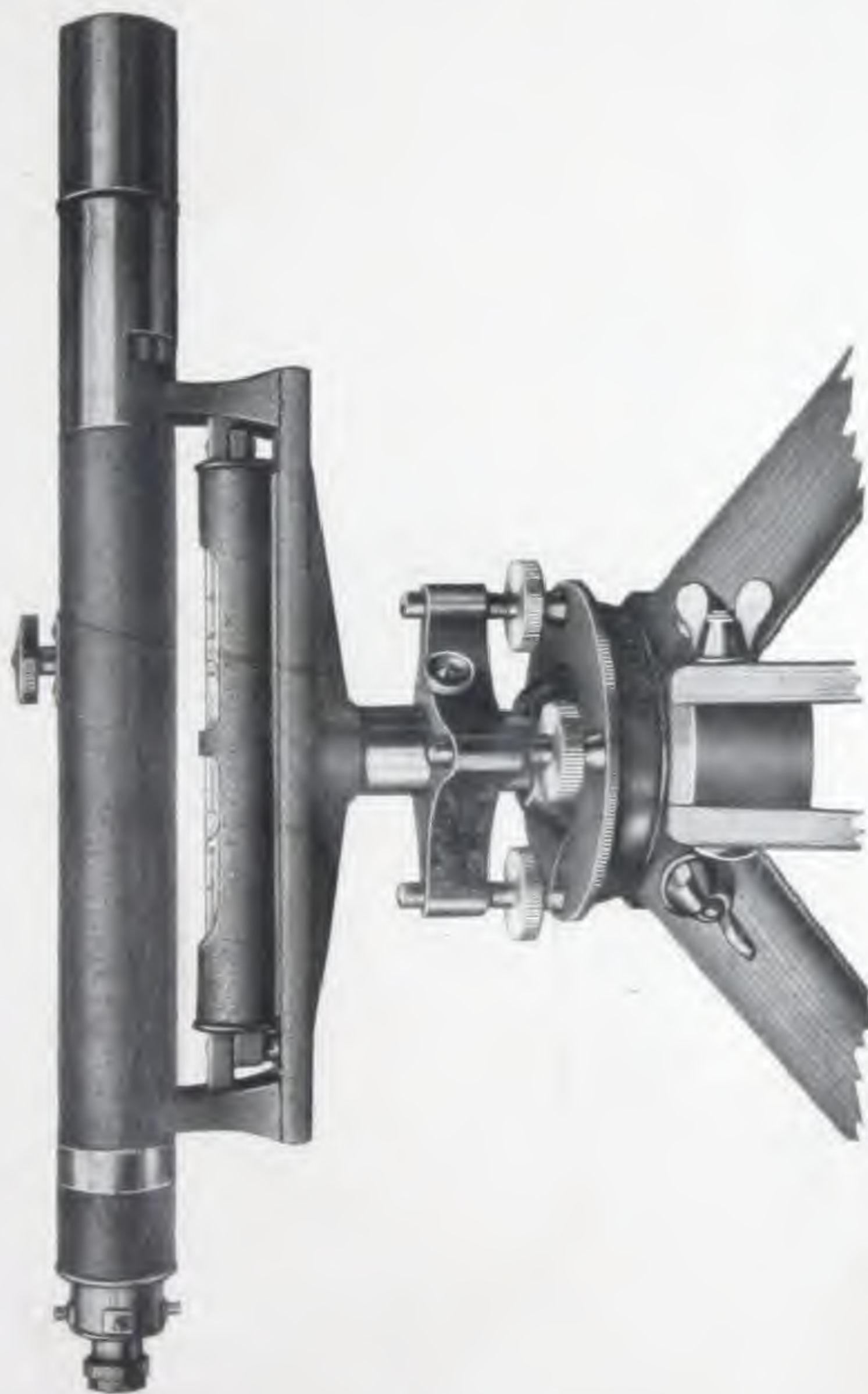
For cut of instrument, see page 261.

No. B-05157—ENGINEERS' DUMPY LEVEL, with 16-inch inch telescope. Each.....	\$100.00
No. B-05158—ENGINEERS' DUMPY LEVEL, with 18-inch telescope. Each.....	\$100.00
Dumpy level provided with tangent screw, same as on Wye level.....	11.50



## Engineers' Dumpy Level—Continued

(Buff & Buff Mfg. Co.)



Erecting or Inverting

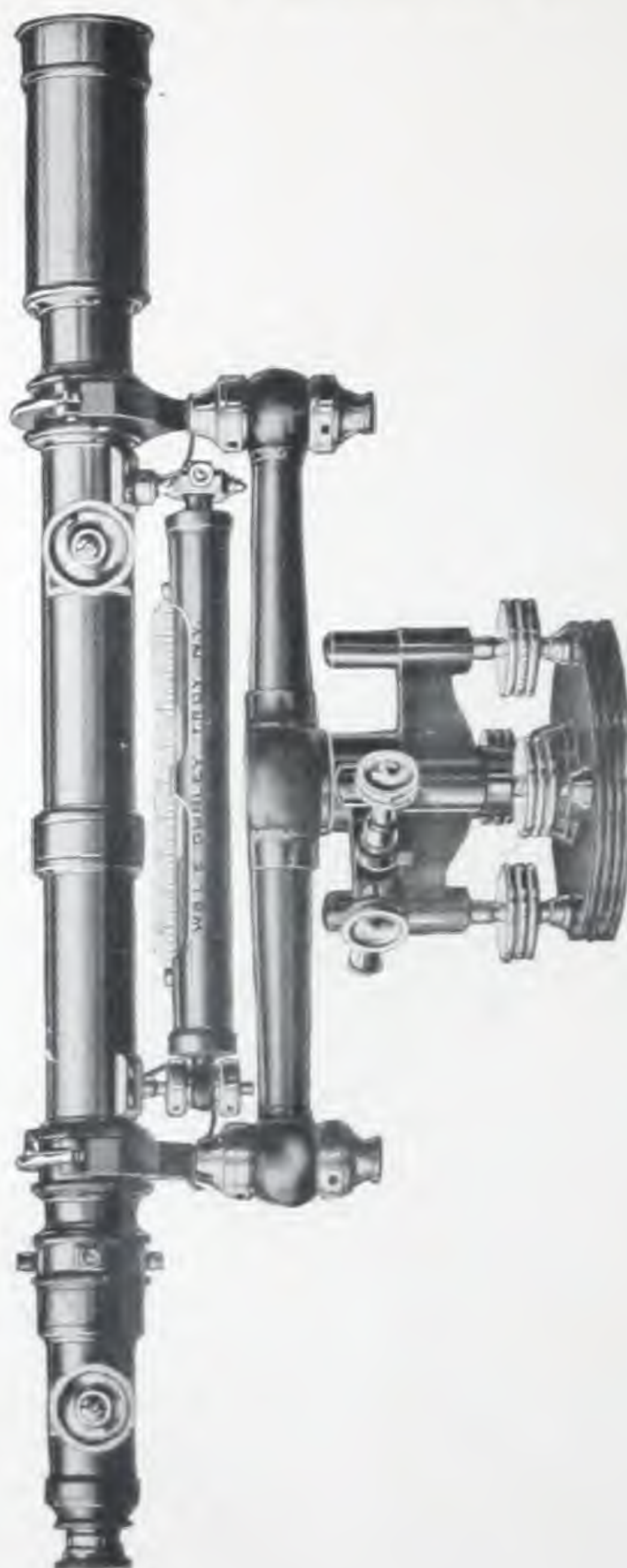
No. B-05157

For description, see page 260.



# Engineers' Wye Levels

(W. & L. E. Gurley.)



No. B-05160

For description, see page 263.



## Engineers' Wye Levels—Continued

(W. & L. E. Gurley.)

### SPECIFICATIONS

**CENTERS AND HEAD**—Long steel spindle with bronze socket, leveling head of ribbed construction combining light weight with rigidity, four leveling screws with dust caps, clamp and tangent to spindle.

**BAR AND WYES**—Bar of bell-metal, special design, shaped for greatest strength in the parts most subject to strain. Wyes, large and strong, with adjustable nuts; one of the wye clips fitted with stop which maintains cross wires in a true horizontal and perpendicular position.

**TELESCOPE**—Best quality with good light, flat field and clear definition; erecting eye-piece, objective  $1\frac{3}{8}$  inches aperture; cross wires of platinum; rack and pinion to eye-piece and object slides; dust guard to object slide; detachable sunshade, and cap for object glass.

**LEVEL**—With sensitive ground vial, graduations on metal scale; level is adjustable horizontally and vertically.

**FINISH**—Bronze, except screws and small parts which are bright.

**EQUIPMENT**—Mahogany box with hinged cover, lock, strap and rubber bumpers. Instrument is packed upright with leveling head attached. Accessories of 10 oz. plain plummet, screwdriver and adjusting pins.

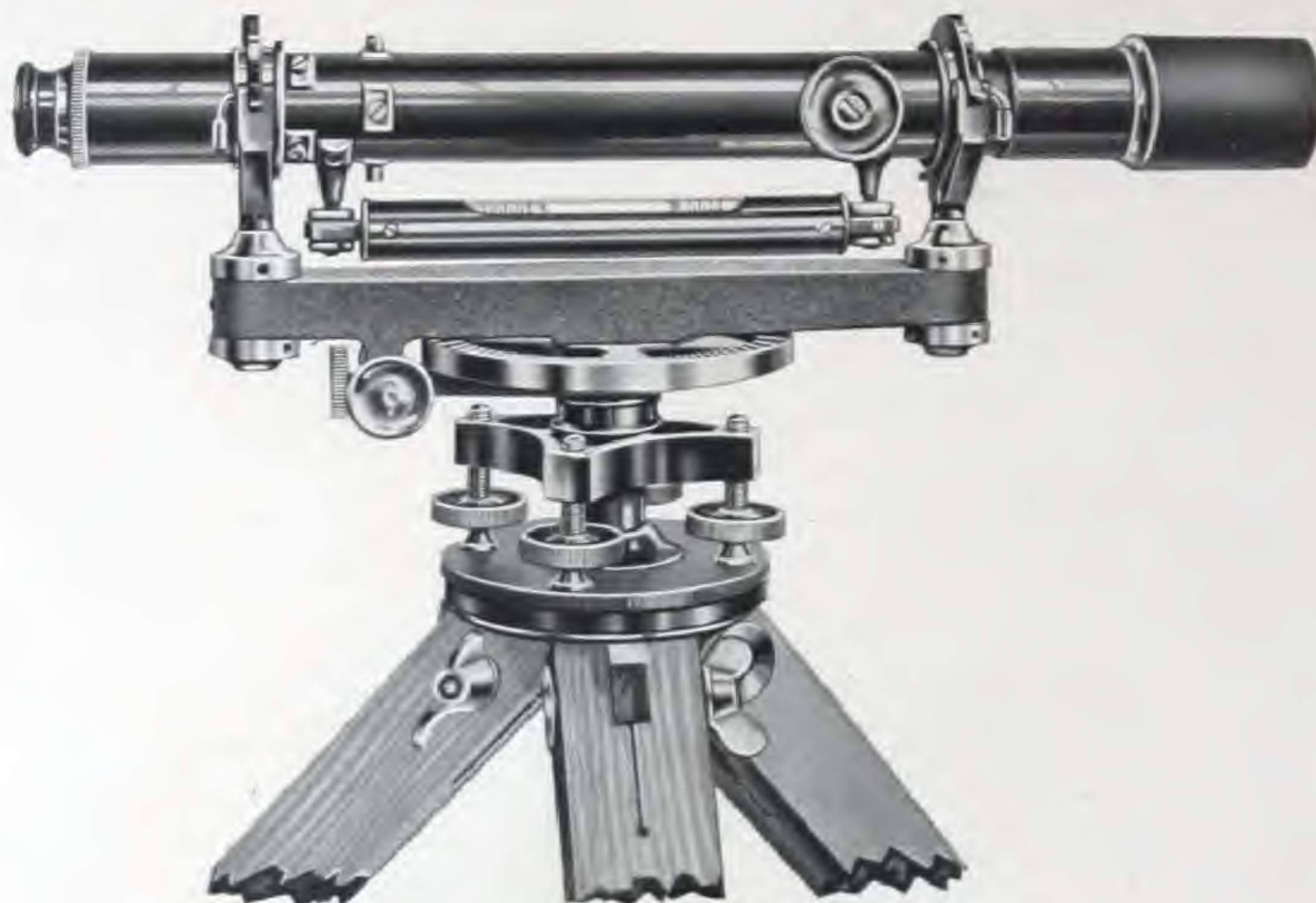
**TRIPOD**—Plain legs; bolts have wing nuts which can be tightened by hand; protecting cap for head.

For cut, see page 262.

No. B-05160—ENGINEERS' WYE LEVEL, with 18-inch telescope, power 32 diameters. Each.....	\$110.00
No. B-05162—ENGINEERS' WYE LEVEL, with 20-inch telescope, power 37 diameters. Each.....	110.00
No. B-05164—ENGINEERS' WYE LEVEL, with 22-inch telescope, power 42 diameters. Each.....	115.00



## Builders' and Architects' Levels



No. B-05183

### SPECIFICATIONS

**TELESCOPE**—12 inches, power 19 diameters, object glass  $1 \frac{3}{16}$ -inch, focused by rack and pinion movement, with protection to object slide. Eye-piece focused by spiral screw adjustment. Spirit level to telescope 5-inch, sensitiveness about 60 seconds and graduated on the glass.

**HORIZONTAL CIRCLE**—3-inch diameter, graduated to degrees, numbered 0 to 90 each way, with vernier reading to 5 minutes.

Wyes provided with locking arrangement, dispensing with ordinary pin and cord attachment.

Each instrument furnished with plain tripod and trivet, and packed in hardwood case, fully equipped.

Weight of instrument, 5 lbs. Tripod, 6 lbs.

	EACH
No. B-05182—BUILDERS' AND ARCHITECTS' LEVEL...	\$45.00
No. B-05183—BUILDERS' AND ARCHITECTS' LEVEL, same as No. B-05182, but with improved clamp and tangent .....	55.00



# Builders' and Architects' Convertible Level



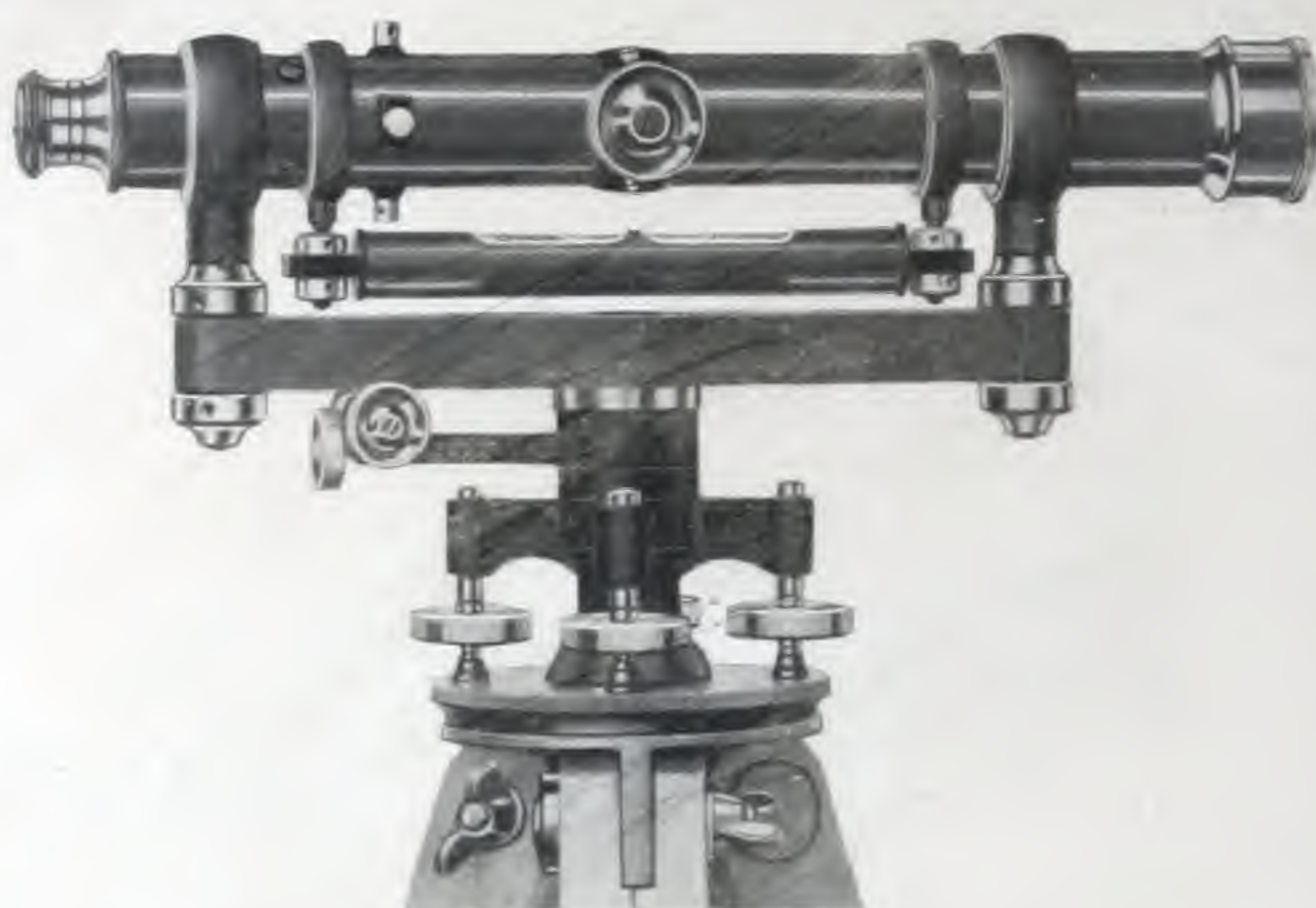
No. B-05185

Similar in size and specifications to No. B-05183, described on page 264, and in addition has a patented axis supplied which consists of one single piece of tough phosphor-bronze attached to the instrument by two thumb screws. This arrangement is superior to any on the market and requires but a few minutes to attach. By its use, the regular level can be used for taking vertical sights with no other change. The construction is strong, positive and simple. More work can be done with this instrument than with any other of its class. The combination is thoroughly practical and accurate and will save much time. The instrument is guaranteed throughout for accuracy and the very best workmanship.

No. B-05185—BUILDERS' AND ARCHITECTS' CONVERTIBLE LEVEL. Each.....\$65.00



## Road Builders' Level



No. B-05199

The telescope is 12 inches long with magnifying power 25 diameters. Aperture of objective lens  $1\frac{1}{4}$  inches. Center is extra long and well tapered and is made of hard bell-metal. Telescope is of fine definition and the objective lens is focused by rack and pinion of improved make. Improved eye-piece for precise focusing of the cross-hairs. Telescope yokes are of the best composition metal, permanently fixed, thus insuring greater stability. Level vial is extra long, carefully ground and is graduated on the glass. Instrument packed erect, ready for use, in polished hardwood box with strap, fully equipped.

No. B-05198—ROAD BUILDERS' LEVEL. Each.....\$35.00

No. B-05199—ROAD BUILDERS' LEVEL, same as No.  
B-05198, but with clamp and tangent. Each.... 40.00



## Land and Witness Marks



No. B-05250



No. B-05260

The Land Mark consists of three parts.

The base is of cast iron with a raised ridge to prevent turning when firmly packed in the ground.

Into the base is shrunk the stem, which is of galvanized iron.

To the top of the stem is firmly riveted the brass cap, which sets firmly over the end of the stem, so that all water is excluded.

The Cap is divided into four segments, with lines pointing to the four cardinal points—the North point denoted by an arrow.

	EACH
No. B-05250—LAND MARK CAP, 1¼ inch galvanized pipe, 2½ inch brass cap, length 3 feet.....	\$2.25
No. B-05255—LAND MARK CAP, 2 inch galvanized pipe, 3½ inch brass cap, length 4 feet.....	3.25
No. B-05260—LAND MARK CAP, for setting in concrete 2 inch galvanized pipe, 3½ inch brass cap, length 4 feet.....	3.25
Additional lengths, per foot.....	.30



No. B-05265

THE WITNESS MARK is especially practicable for use as a witness to a corner which must, for some reason, be set beneath the surface of the soil, or to denote which the setting of a Land Mark is not possible. Base and stem as in the PEASE LAND MARK.

	EACH
No. B-05265—WITNESS MARK, 2 inch galvanized pipe, 3½ inch brass cap, length 4 feet.....	\$3.25
Additional lengths, per foot.....	.30



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